

**F**ACILITIES

AND

**E**QUIPMENT

**M**AINTENANCE

**S**YSTEM

**FEM**

**CORPS OF ENGINEERS  
FINANCIAL MANAGEMENT  
SYSTEM (CEFMS)**

**INTERFACE CONTROL AND  
DESIGN DOCUMENT**

**FOR THE**

**NAVY SUPPORT GROUP  
(NSSG)**

**FACILITIES AND EQUIPMENT  
MAINTENANCE SYSTEM (FEM)**

**(DRAFT)**

**MAY 2001**

**Contract Number: GS-35F-4357D  
Delivery Order: TO600BN1269**

**CDRL Numbers: A008, A009**

**USACE  
CEFMS INTERFACE CONTROL DOCUMENT**

FOR THE

NAVY SYSTEMS SUPPORT GROUP (NSSG)  
FACILITIES AND EQUIPMENT MAINTENANCE (FEM) SYSTEM

CONTRACT # GS-35F-4357D

DO # TO600BN1269

DI-MISC-80508, (CDRL A008)  
DI-IPSC-81436, (CDRL A009)

MAY 2001

Prepared for:  
Navy Systems Support Group (NSSG)  
Norfolk Naval Shipyard  
Building 33  
Portsmouth, VA 23709

Prepared by:  
Anteon Corporation  
2770-H Gunter Park Drive East  
Montgomery, AL 36109-1412

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## 1. SCOPE

This Interface Control Document documents the interface between the Facilities and Equipment Maintenance System (FEM) and the US Army Corps of Engineer’s Financial Management System (CEFMS)

### 1.1 FEM Overview

The Naval Systems Support Group (NSSG) is delivering to the Army Corps of Engineers an enterprise functionality to support improved business processes required for effective maintenance. Providing this functionality requires the development and delivery of a set of Automated Information Systems (AIS) that automate selected processes, improve the efficiency of these procedures and continue to meet mission needs within budget constraints. The Program is initially deploying a suite of migration applications composed of Commercial Off-The-Shelf (COTS), and Government Off-The-Shelf (GOTS) and modified GOTS software packages that address major end-items and equipment maintenance. These migration applications were selected by the Services to form an initial baseline suite of capability to satisfy the improved functional baseline, derived from the Joint Services functional users.

FEM is the system identified by the Joint Services functional users to be employed by the Services for managing industrial plant facilities and capital equipment resources. The FEM system is to provide the depots with an automated tracking and control system for the management of facility and equipment maintenance, equipment calibration, equipment maintenance contracts, inventory control, asset costs, preventive and corrective maintenance, and capacity data. The core application of FEM is MAXIMO Series 5 Version 4.0.3, a COTS package developed by Professional Software Development Incorporated (PSDI).

FEM is being implemented at two USACE data processing centers to support all USACE Districts:

1. Portland, OR. Supports all FOA databases assigned to the Western Processing Center
2. Vicksburg, MS. Supports all FOA databases assigned to the Central Processing Center

The table below lists the processing center and assigned Activities:

| Central Processing Center |   | Western Processing Center |                         |
|---------------------------|---|---------------------------|-------------------------|
| FOA                       | Title                                     | FOA                       | Title                   |
| A0                        | Huntsville Engineering and Support Center | E0                        | North Atlantic Division |
| B0                        | Mississippi Valley Division               | E1                        | Baltimore District      |
| B1                        | Memphis District                          | E2                        | Washington District     |
| B2                        | New Orleans District                      | E3                        | New York District       |
| B3                        | St Louis District                         | E4                        | Norfolk District        |
| B4                        | Vicksburg District                        | E5                        | Philadelphia District   |
| B5                        | Rock Island District                      | E6                        | New England             |
| B6                        | St Paul District                          | G0                        | Northwestern Division   |
| E7                        | Europe District                           | G2                        | Portland District       |
| K0                        | South Atlantic Division                   | G3                        | Seattle District        |

| <b>Central Processing Center</b> |   | <b>Western Processing Center</b> |                                     |
|----------------------------------|---|----------------------------------|-------------------------------------|
| <b>FOA</b>                       | <b>Title</b>                                  | <b>FOA</b>                       | <b>Title</b>                        |
| K2                               | Charleston District                           | G4                               | Walla Walla District                |
| K3                               | Jacksonville District                         | G5                               | Kansas District                     |
| K5                               | Mobile District                               | G6                               | Omaha District                      |
| K6                               | Savannah District                             | H0                               | Great Lakes and Ohio River Division |
| K7                               | Wilmington District                           | H1                               | Huntington District                 |
| M0                               | Southwestern Division                         | H2                               | Louisville District                 |
| M2                               | Fort Worth District                           | H3                               | Nashville District                  |
| M3                               | Galveston District                            | H4                               | Pittsburgh District                 |
| M4                               | Little Rock District                          | H5                               | Buffalo District                    |
| M5                               | Tulsa District                                | H6                               | Chicago District                    |
| N0                               | Transatlantic Programs Center                 | H7                               | Detroit District                    |
| Q0                               | Water Resources Support Center                | J0                               | Pacific Ocean Division              |
| S0                               | HQ USACE                                      | J1                               | Far East District                   |
| T0                               | USACE Finance Center                          | J2                               | Japan District                      |
| U4                               | Eng Research and Development Center           | J3                               | Honolulu District                   |
| W2                               | Humphreys Engineering Center Support Activity | J4                               | Alaska District                     |
| W3                               | Prime Power School                            | L0                               | South Pacific Division              |
|                                  |   | L1                               | Los Angeles District                |
|                                  |   | L2                               | Sacramento District                 |
|                                  |   | L3                               | San Francisco District              |
|                                  |   | L4                               | Albuquerque District                |

## 1.2 CEFMS Overview

CEFMS is the Corps standard automated financial management system. It supports funds distribution, project funds control, execution reporting, general fiscal accounting, budgeting and reporting. It includes both real-time and batch capability, with on-line editing and real-time reject reporting.

CEFMS provides a fully comprehensive system for all levels of management. It also allows systems interfaces to electronically exchange data with existing government information systems thus supporting time and resource conservation. CEFMS is an automated system that contains the following features:

- Fourth-generation tools
- Relational database technology
- Single source data entry
- Data sharing through secured electronic interfaces with other major business process automated information systems
- Electronic signature authority enhancing fiscal integrity and internal controls
- Accurate, relevant, and accessible data
- User friendly screens
- Query capability tailored to the user's need using a standard query language (SQL)
- Report writer capability

CEFMS consists of over 50 independent Oracle databases, each supporting a specific Field Operating Agency (FOA).

## 2. Points of Contact

| <b>Organization</b>  | <b>Point of Contact</b>   |
|--|---|
| Navy Systems Support Group<br>(NSSG)<br>Norfolk Navy Shipyard, Bldg 33<br>Portsmouth, VA, 23709                                    | Les Kramer<br>FEM Program Manager<br>Phone: 757-396-2119<br>DSN: 961-2119                   |
| Headquarters, U.S. Army Corps of<br>Engineers (USACE)<br>Office of the Assistant Chief of Staff<br>for Logistics<br>Washington DC, | Ray Urena<br>Chief, Maintenance and Supply Division<br>Phone: 202-761-1618<br>DSN: 763-1618 |
| UFC-CEFMS<br>Huntsville, AL  | Tommy Pond<br>CEFMS Functional Manager<br>Phone: (256) 864-1800<br>DSN:                     |

| <b>Organization</b>                         | <b>Point of Contact</b>  |
|---|--|
| Anteon Corporation<br>Montgomery, AL, 36109 | Jim Bent<br>Program Manager<br>Phone: 334-260-3348 or<br>1-800-362-2322, ext. 3348 |
| Anteon Corporation<br>Montgomery, AL, 36109 | Al Kent<br>Project Manager<br>Phone: 334-260-3222 or<br>1-800-362-2322, ext. 3222  |

### 3. Interfacing Systems Information

The tables below identify the databases that will be interfaced. Wherever possible the interface will be accomplished using database links. However, there will be some cases where the data will not be updated real time. In these cases data will be stored and a database link will be established periodically to update data on the other system(s).

#### 3.1.1 FEM Databases

|                | <b>Name</b>   | <b>IP Address</b> | <b>Oracle SID</b> |
|----------------|---------------|-------------------|-------------------|
| USACE FEM West | Portland, OR  |                   |                   |
| USACE FEM East | Vicksburg, MS |                   |                   |

#### 3.1.2 CEFMS Databases

| <b>FOA</b> | <b>Name</b>                               | <b>IP Address</b> | <b>Oracle SID</b> |
|------------|---|-------------------|-------------------|
| A0         | Huntsville Engineering and Support Center |                   |                   |
| B0         | Mississippi Valley District               |                   |                   |
| B1         | Memphis District                          |                   |                   |
| B2         | New Orleans District                      |                   |                   |
| B3         | St Louis District                         |                   |                   |
| B4         | Vicksburg District                        |                   |                   |
| B5         | Rock Island District                      |                   |                   |
| B6         | St Paul District                          |                   |                   |
| E0         | North Atlantic District                   |                   |                   |
| E1         | Baltimore District                        |                   |                   |
| E2         | Washington District                       |                   |                   |
| E3         | New York District                         |                   |                   |
| E4         | Norfolk District                          |                   |                   |
| E5         | Philadelphia District                     |                   |                   |
| E6         | New England                               |                   |                   |
| E7         | Europe District                           |                   |                   |

| <b>FOA</b> | <b>Name</b>  | <b>IP Address</b> | <b>Oracle SID</b> |
|------------|--|-------------------|-------------------|
| G0         | Northwestern Division                                |                   |                   |
| G2         | Portland District                                    |                   |                   |
| G3         | Seattle District                                     |                   |                   |
| G4         | Walla Walla District                                 |                   |                   |
| G5         | Kansas District                                      |                   |                   |
| G6         | Omaha District                                       |                   |                   |
| G7         | Missouri River Regional HQ<br>(Consolidated with G0) |                   |                   |
| H0         | Great Lakes and Ohio River Division                  |                   |                   |
| H1         | Huntington District                                  |                   |                   |
| H2         | Louisville District                                  |                   |                   |
| H3         | Nashville District                                   |                   |                   |
| H4         | Pittsburgh District                                  |                   |                   |
| H5         | Buffalo District                                     |                   |                   |
| H6         | Chicago District                                     |                   |                   |
| H7         | Detroit District                                     |                   |                   |
| H8         | Great Lake Regional HQ (Consolidated<br>with H0)     |                   |                   |
| J0         | Pacific Ocean Division                               |                   |                   |
| J1         | Far East District                                    |                   |                   |
| J2         | Japan District                                       |                   |                   |
| J3         | Honolulu District                                    |                   |                   |
| J4         | Alaska District                                      |                   |                   |
| K0         | South Atlantic Division                              |                   |                   |
| K2         | Charleston District                                  |                   |                   |
| K3         | Jacksonville District                                |                   |                   |
| K5         | Mobile District                                      |                   |                   |
| K6         | Savannah District                                    |                   |                   |
| K7         | Wilmington District                                  |                   |                   |
| L0         | South Pacific Division                               |                   |                   |
| L1         | Los Angeles District                                 |                   |                   |
| L2         | Sacramento District                                  |                   |                   |
| L3         | San Francisco District                               |                   |                   |
| L4         | Albuquerque District                                 |                   |                   |
| M0         | Southwestern Division                                |                   |                   |
| M2         | Fort Worth District                                  |                   |                   |
| M3         | Galveston District                                   |                   |                   |
| M4         | Little Rock District                                 |                   |                   |
| M5         | Tulsa District                                       |                   |                   |
| N0         | Transatlantic Programs Center                        |                   |                   |
| Q0         | Water Resources Support Center                       |                   |                   |
| S0         | HQ USACE   |                   |                   |
| T0         | USACE Finance Center                                 |                   |                   |

| <b>FOA</b> | <b>Name</b>                                   | <b>IP Address</b> | <b>Oracle SID</b> |
|------------|---|-------------------|-------------------|
| U1         | Topographic Engineering Center                |                   |                   |
| U2         | Cold Regions Research & Engineering Lab       |                   |                   |
| U3         | Construction Engineering Research Lab         |                   |                   |
| U4         | Waterways Experiment Station                  |                   |                   |
| W2         | Humphreys Engineering Center Support Activity |                   |                   |
|            |   |                   |                   |
|            |   |                   |                   |

#### **4. Interface Details**

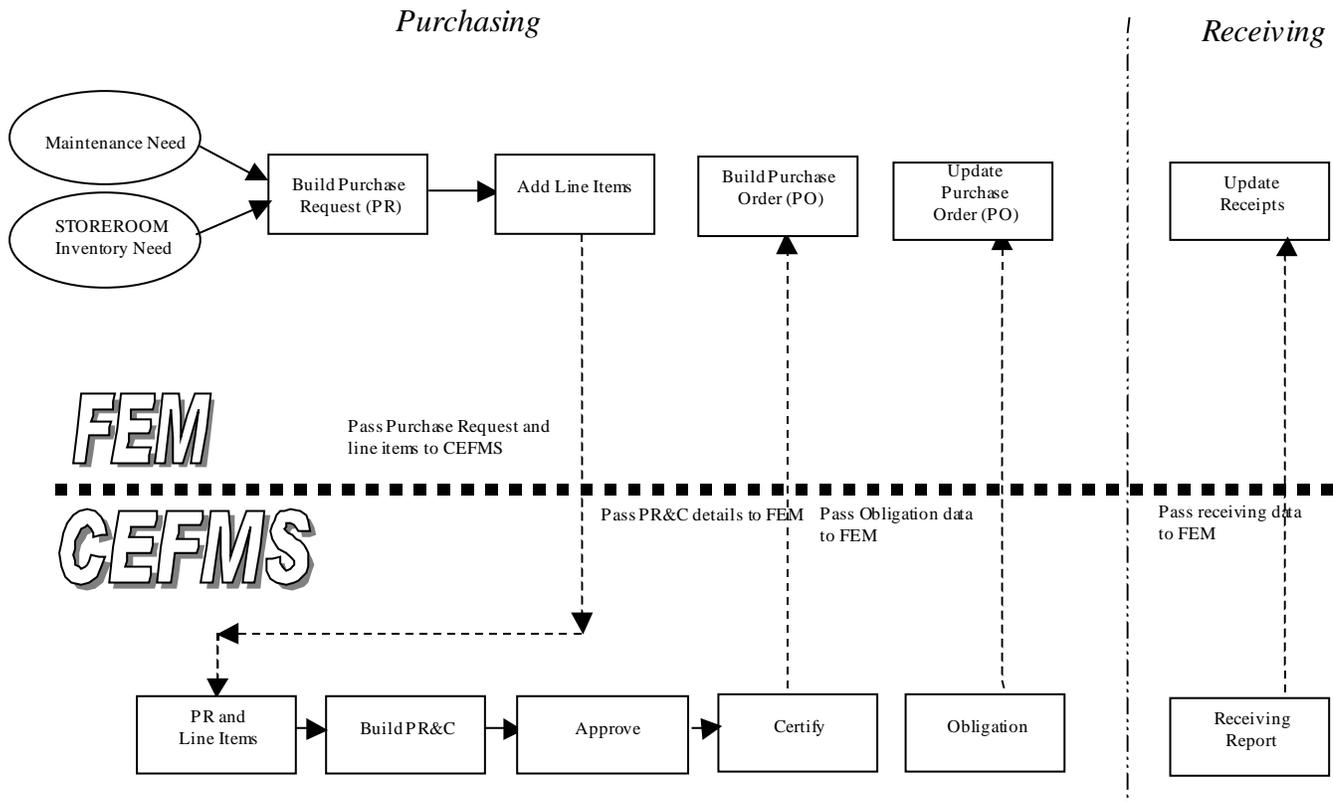
FEM will utilize its standard interface infrastructure applications to control the physical transmission of data to and from CEFMS databases. The Interface Information (INTINFO) application will be used to define the mechanism for connecting to the CEFMS databases. The Interface Status and Interface History applications will be used to monitor the interface's performance. Oracle's TNSNAMES file will be used to define the database links. FEM will utilize log table(s) to serve as a transaction history and process control mechanism. Data being sent to or received from another database will be first placed in a log table and then processed.

For outgoing data from FEM, FEM will put data in a log table based on actions on other FEM tables. FEM will send data from log tables in FEM to the log tables in the CEFMS databases. CEFMS will process data in the log tables and update the appropriate CEFMS tables.

For selected incoming data to FEM, CEFMS will place data in FEM log tables and FEM will update the appropriate FEM tables. In other cases FEM will access CEFMS tables directly and pull the required data. The paragraphs below describe each of the major interface processes between FEM and CEFMS.

## 4.1 Purchase Request and Commitment (PR&C) Processing

The diagram below along with the paragraphs that follow, outline the PR&C process interactions between FEM and CEFMS.



FEM will utilize its Purchase Request application to request material and services needed to support maintenance activities. In general, these requests can be originated in two ways. First, materials or services are required to complete a maintenance function (scheduled or unscheduled maintenance). This may result in an In-House request if the material is available in stock or an External request if the material must be purchased. In-House requests will be required for to pull material from any storeroom that is also managed by CEFMS. Second, materials are required to replenish stock levels in a maintenance storeroom when the on hand level has fallen below a predefined reorder point.

When either of these two situations occurs, a FEM Purchase Request is created to identify what is to be purchased. Information in the FEM Purchase Request will be sent to CEFMS for the completion of a CEFMS PR&C.

Authorized CEFMS users will use CEFMS applications to build, approve, and certify the PR&C using data supplied in the FEM Purchase Request. Once the PR&C is certified, CEFMS will send the PR&C number and other supporting information to FEM.

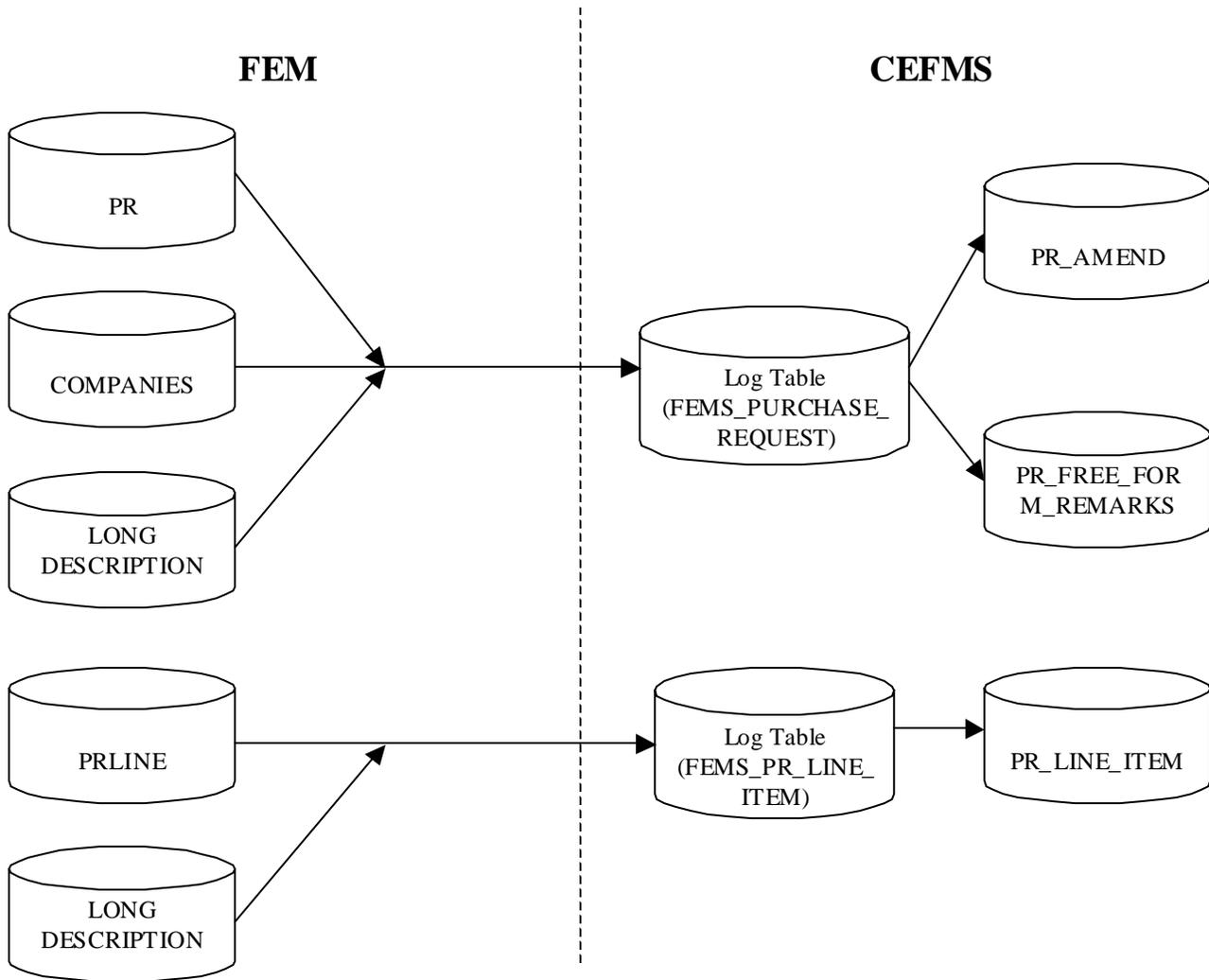
FEM will use the PR&C information to develop a FEM Purchase Order that will tie the PR&C to the original request. This “tie” will enable visibility throughout the FEM system.

Once the PR&C is obligated, CEFMS will notify FEM so the FEM Purchase Order can be updated with the obligation and vendor information.

CEFMS will be used to receive the material or service. When the Receiving Report is processed, CEFMS will send this data to FEM. FEM will then make the appropriate updates to the FEM database.

### 4.1.1 Sending Purchase Request Data from FEM to CEFMS

After a Purchase Request is approved in FEM (PR.STATUS = 'APPR'), the corresponding Purchase Request and line items will be transmitted to CEFMS. Only a select group of FEM users will be allowed to approve a Purchase Request. The diagram below shows tables from which the data is pulled from in FEM and sent to in CEFMS.



A database link will be established to periodically connect with the appropriate CEFMS database and send all Approved Purchase Requests to CEFMS and place them in CEFMS log tables. If the Purchase Request and all of its line items are successfully sent to CEFMS, the Purchase Request status will be changed to 'CEFMS' and the Status Date will be set. The Purchase Request Status history table will also be updated with the status and status date. CEFMS will maintain a cross reference between the

FEM Purchase Request number and CEFMS PR&C number. CEFMS will also use the FEM Purchase Request Line Item Numbers as the PR&C line numbers.

CEFMS will make the data from the CEFMS Purchase Request Log table (i.e., remarks and suggested vendors) available for reference and use by the individual creating the PR&C in CEFMS. Data from the Purchase Request Line Item log table will also be made available to the individual creating the PR&C in CEFMS. The CEFMS user will have a mechanism to select the line items and add them to the PR&C. CEFMS will not allow the users to change the order of the Purchase Request line items or to add new line items that were not on the original Purchase Request. If These type of changes are required the Purchase Request should be adjusted in Fem and re-sent to CEFMS or another Purchase Request with the additional line item must be generated.

Links to the CEFMS databases will be established on a regular cycle. If there is a problem establishing a link, FEM will process the record on the next cycle. FEM will maintain a counter of the number of unsuccessful tries in the interface status (INTSATUS) table. Once a successful link is established the counter will be reset to zero. The Interface Status application will be the System Administrator’s tool to determine if the database links for CEFMS are working. A high number of unsuccessful tries will be the System Administrator’s flag to research the problem.

**4.1.1.1 Send FEM Purchase Requests.**

The table below describes how data will be mapped from standard FEM Purchase Request table (PR) into the CEFMS log tables. All data will be checked for proper format as the data is inserted into the Purchase Request screen and the user will be notified immediately if there is a problem.

If there is an error inserting Purchase Request data into the CEFMS log table (FEMS\_PURCHASE\_REQUEST) the Purchase Request status will be changed to ‘ERROR’ and a record will be inserted in the Purchase Request status table (PRSTATUS). The Memo field in the Purchase Request status table will be used to define the problem. The user will need to make the appropriate changes to the Purchase Request and be re-approved so the Purchase Request can be sent to CEFMS.

The remarks associated with a Purchase Request will be extracted from the FEM Long Description table (LONGDESCRIPTION) where LONGDESCRIPTION.LDKEY = PR.LDKEY and LDOWNERCOL = ‘DESCRIPTION’ and LDOWNERTABLE = ‘PR’ for the Purchase Request number being inserted.

The descriptions for the vendors are extracted from the Company table (COMPANIES) where PR.VENDOR = COMPANIES.COMPANY, PR.BILLTO = COMPANIES.COMPANY, and PR.SHIPTO = COMPANIES.COMPANY for vendor 1,2, and 3 respectively.

The Purchase Request Description and Purchase Request Long Description will be merged into one field in the CEFMS log table. Each block of data will be preceded with a header. Only that portion of the long description that will fit in the remaining space in the CEFMS Remark field will be sent to CEFMS.

| FEM Table | SENDING SYSTEM  |          |      | RECEIVING SYSTEM      |                   |          |      |
|-----------|-----------------|----------|------|-----------------------|-------------------|----------|------|
|           | FEM Column Name | Format   | Size | CEFMS Table           | CEFMS Column Name | Format   | Size |
| PR        | PRNUM           | VARCHAR2 | 8    | FEMS_PURCHASE_REQUEST | FEMS_PRAC_NO      | VARCHAR2 | 8    |
| PR        | PR1 (ORGCODE)   | VARCHAR2 | 9    | FEMS_PURCHASE_REQUEST | REQUEST_ORG_CODE  | VARCHAR2 | 9    |

| SENDING SYSTEM   |                 |          |      | RECEIVING SYSTEM      |                      |          |      |
|------------------|-----------------|----------|------|-----------------------|----------------------|----------|------|
| FEM Table        | FEM Column Name | Format   | Size | CEFMS Table           | CEFMS Column Name    | Format   | Size |
| PR               | PR3 (PRTYPE)    | VARCHAR2 | 2    | FEMS_PURCHASE_REQUEST | PR_TYPE              | BARCHAR2 | 3    |
| PR               | DESCRIPTION     | VARCHAR2 | 50   | FEMS_PURCHASE_REQUEST | PR_REMARKS           | VARCHAR2 | 2000 |
| LONG DESCRIPTION | LDTEXT          | LONG     |      |                       |                      |          |      |
| COMPANIES        | DESCRIPTION     | VARCHAR2 | 50   | FEMS_PURCHASE_REQUEST | VENDOR1_TEXT         | VARCHAR2 | 50   |
| COMPANIES        | DESCRIPTION     | VARCHAR2 | 50   | FEMS_PURCHASE_REQUEST | VENDOR2_TEXT         | VARCHAR2 | 50   |
| COMPANIES        | DESCRIPTION     | VARCHAR2 | 50   | FEMS_PURCHASE_REQUEST | VENDOR3_TEXT         | VARCHAR2 | 50   |
|                  | Null            |          |      | FEMS_PURCHASE_REQUEST | LOG_RECEIVED_DATE    | DATE     |      |
|                  | Null            |          |      | FEMS_PURCHASE_REQUEST | CEFMS_PR_STATUS_CODE | VARCHAR2 | 1    |
|                  | Null            |          |      | FEMS_PURCHASE_REQUEST | PRAC_NO              | VARCHAR2 | 16   |

Note: CEFMS updates the LOG\_RECEIVED\_DATE with the date the transaction was received.  
 CEFMS updates the CEFMS\_PR\_STATUS\_CODE with the status of the transaction:

- R = Received from FEM
- O = CEFMS Purchase Request Originated (PRAC\_NO is populated)
- A = CEFMS Purchase Request is approved
- C = CEFMS Purchase Request is certified
- D = CEFMS Purchase Request is deleted

The following table shows the error messages that will be produced by CEFMS if the data trying to be inserted is in error:

Note: The () will contain the actual data value.

| SQL Code | Error Message   |
|----------|---|
| -20600   | REQUEST_ORG_CODE () does not exist on this CEFMS database.<br><br><i>This message will occur if an invalid Org Code is placed in the FEMS_PURCHASE_REQUEST.REQUEST_ORG_CODE field.</i>  |
| -20601   | You must first populate the Purchase Request log table with this FEMS_PRAC_NO () before populating the line item log table.<br><br><i>This message will occur if the FEMS_PR_LINE_ITEM does not have a parent in the FEMS_PURCHASE_REQUEST table.</i> |

|        |   |
|--------|---|
| -20602 | <p>You cannot insert new line item records after the CEFMS created purchase request has been approved.</p> <p><i>This message will occur if the purchase request created in CEFMS for the FEMS purchase request is approved, and you are attempting to send us new line items into FEMS_PR_LINE_ITEM table.</i></p> |
| -20603 | <p>This CEFMS database has no Revolving Fund warehouse recorded for the WIR_WI_CODE ().</p> <p><i>This message will occur if the FEMS_PR_LINE_ITEM.WIR_WI_CODE does not exist on the CEFMS database.</i></p>  |
| -20604 | <p>UOM_CODE () is invalid in CEFMS.</p> <p><i>This message will occur if the FEMS_PR_LINE_ITEM.UOM_CODE is invalid.</i></p>   |
| -20605 | <p>No Warehouse Inventory Record exists for (WIR_WI_CODE = ) and (RESOURCE_CODE = ).</p> <p>This message will occur for Contractual Non Direct Issue and the WIR_WI_CODE and RESOURCE_CODE do not exist in our CEFMS WIR table.</p>   |
| -20606 | <p>UOM_CODE () does not match the Warehouse Inventory Record's replenishment unit of measure ().</p> <p>This message will occur for Contractual Non Direct Issue and the FEMS_PR_LINE_ITEM.UOM_CODE does not match the CEFMS WIR tables REPLENISHMENT_UOM_CODE.</p>   |
| -20607 | <p>REQUEST_ORG_CODE () does not match the Org Code for the warehouse.</p> <p>This message will occur for Contractual Non Direct Issue and the FEMS_PURCHASE_REQUEST.REQUEST_ORG_CODE is invalid for the FEMS_PR_LINE_ITEM.WIR_WI_CODE value.</p>  |
| -20608 | <p>WI_CODE () and WIR_WI_CODE () must contain the same value.</p> <p>This message will occur for Contractual Non Direct Issue and the FEMS_PR_LINE_ITEM.WIR_WI_CODE and WI_CODE are different. For reordering of stock, these must be the same value.</p>   |

|        |  |
|--------|--|
| -20609 | <p>Resource Code () does not exist in CEFMS database.</p> <p>This message will occur for Contractual Direct Issue and the FEMS_PR_LINE_ITEM.RESOURCE_CODE is invalid on CEFMS.</p>   |
| -20610 | <p>You cannot order an inventory item (RESOURCE_CODE = ) on a direct issue line item.</p> <p>This message will occur for Contractual Direct Issue and the FEMS_PR_LINE_ITEM.RESOURCE_CODE is designated as a warehouse stock item in CEFMS.</p>    |
| -20611 | <p>The UOM_CODE () does not match the warehouse inventory item's unit of measure ().</p> <p>This message will occur for In-House requisitions of stock items (I1) and the FEMS_PR_LINE_ITEM.UOM_CODE does not equal the WIR.UOM_CODE in CEFMS.</p> |

#### 4.1.1.2 Send FEM Purchase Request Line Items.

The table below describes how data will be mapped from standard FEM Purchase Request Line Item table (PRLINE) into the CEFMS log table (FEMS\_PR\_LINE\_ITEM). All data will be checked for proper format as the data is inserted into Purchase Request line items screen and the user will be notified immediately if there is a problem.

If there is an error inserting a Purchase Request line item into the CEFMS Log table (FEMS\_PR\_LINE\_ITEM). the Purchase Request status will be changed to 'ERROR' and an error message will be provided in the POSTATUS table. The user will need to make the appropriate changes to the Purchase Request line item and Purchase Request must be re-approved so the Purchase Request can be sent to CEFMS. An error on any line item will cause the entire Purchase Request to be put in an 'ERROR' status as described in paragraph 4.1.1.1.

If there is an error connecting to the CEFMS database, the system will attempt to connect at a later time and send all Purchase Requests that have been approved but not sent. The system will keep track of the number of successive unsuccessful attempts in the FOA to TNSNAMES Cross-reference table (FOAXREF). The FEM System Administrator will be notified by e-mail if this number reached a warning point as defined in the FEM system variables application.

The remarks associated with a Purchase Request Line Item will be extracted from the FEM Long Description table (LONGDESCRIPTION) where LONGDESCRIPTION.LDKEY = PRLINE.LDKEY and LDOWNERCOL = 'DESCRIPTION' and LDOWNERTABLE = 'PRLINE' for the Purchase Request Line Item being inserted. The Line Item's Description and Long description will be merged into one 2000-character field in the CEFMS log table. Only that portion of the long description that will fit in the remaining space in the CEFMS Remark field will be sent to CEFMS.

FEM will send the Unit of Measure code for the Issue Unit to CEFMS if the Purchase request is for an In-House material Purchase Request (Type = I1). Otherwise FEM will send the Unit of Measure code for the Order Unit. The Unit of Measure code is obtained from FEM's Order Unit table. The Codes in the

FEM Order Unit table will be the same as those used by CEFMS. FEM will not allow the user to override the selected Unit of Measure for material purchases that are not direct issues.

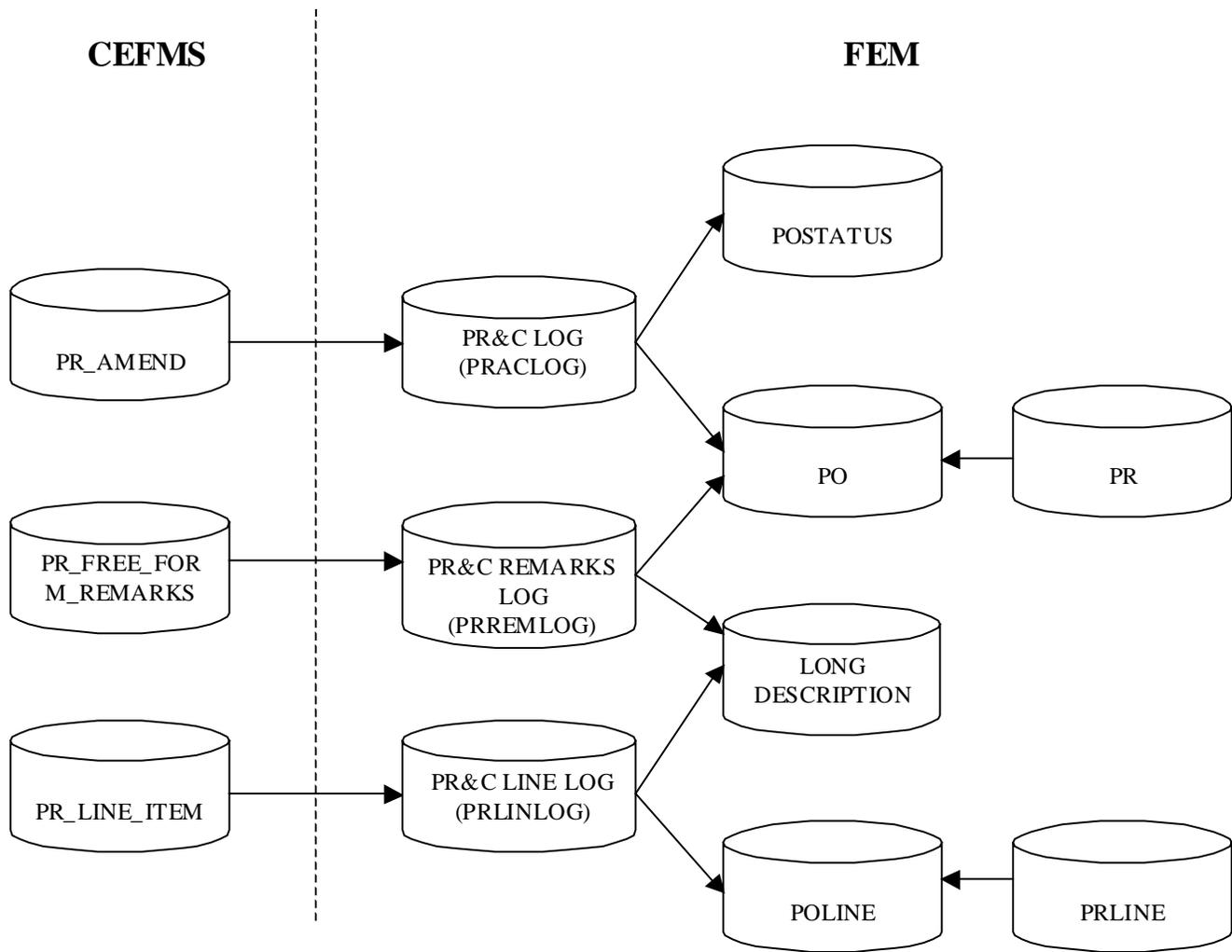
The Ordering Work Item will be the Warehouse Work Item if the request is for inventory replenishment items (DIRECTISSUE = 'N').

If the order is for the re-supply of a non-revolving storeroom, FEM will not send a Warehouse Work Item code to CEFMS.

| SENDING SYSTEM   |                        |          |      | RECEIVING SYSTEM   |                    |          |      |
|------------------|------------------------|----------|------|--------------------|--------------------|----------|------|
| FEM Table        | FEM Column Name        | Format   | Size | CEFMS Table        | CEFMS Column Name  | Format   | Size |
| PRLINE           | PRNUM                  | VARCHAR2 | 8    | FEMS_PR_LINE_ITEMS | FEMS_PRAC_NO       | VARCHAR2 | 8    |
| PRLINE           | PRLINENUM              | INTEGER  | 4    | FEMS_PR_LINE_ITEMS | FEMS_PARC_LINE_NO  | INTEGER  | 4    |
| PRLINE           | RLIN1<br>(RESORCECODE) | VARCHAR2 | 10   | FEMS_PR_LINE_ITEMS | RESOURCE_CODE      | VARCHAR2 | 10   |
| PRLINE           | ORDERQTY               | NUMBER   | 14,2 | FEMS_PR_LINE_ITEMS | REQUESTED_QTY      | NUMBER   | 14,2 |
| PRLINE           | UNITCOST               | NUMBER   | 14,2 | FEMS_PR_LINE_ITEMS | UNIT_PRICE_US      | NUMBER   | 14,2 |
| ORDERUNIT        | UOMCODE                | VARCHAR2 | 2    | FEMS_PR_LINE_ITEMS | UOM_CODE           | VARCHAR2 | 2    |
| PRLINE           | REQDELIVERYDATE        | DATE     |      | FEMS_PR_LINE_ITEMS | EXP_DELIV_DATE     | DATE     |      |
| PRLINE           | DESCRIPTION            | VARCHAR2 | 100  | FEMS_PR_LINE_ITEMS | ITEM_DESC          | VARCHAR2 | 2000 |
| LONG DESCRIPTION | LDTEXT                 | LONG     |      |                    |                    |          |      |
| PRLINE           | RL1<br>(ORDERWORKITEM) | VARCHAR2 | 6    | FEMS_PR_LINE_ITEMS | WI_CODE            | VARCHAR2 | 6    |
| PRLINE           | RL2<br>(FUNDWORKITEM)  | VARCHAR2 | 6    | FEMS_PR_LINE_ITEMS | FA_WI_CODE         | VARCHAR2 | 6    |
| PRLINE           | RL3<br>(WORKCATCODE)   | VARCHAR2 | 5    | FEMS_PR_LINE_ITEMS | WORK_CAT_CODE      | VARCHAR2 | 5    |
| PRLINE           | RL4<br>(WORKCATELEM)   | VARCHAR2 | 5    | FEMS_PR_LINE_ITEMS | WORK_CAT_ELEM_CODE | VARCHAR2 | 5    |
| PRLINE           | DIRECTISSUE            | YORN     |      | FEMS_PR_LINE_ITEMS | DIRECT_ISSUE_IND   | YORN     |      |
| PRLINE           | STORELOC               | VARCHAR2 |      | FEMS_PR_LINE_ITEMS | WIR_WI_CODE        | VARCHAR2 | 6    |

### 4.1.2 Processing PR&C Data from CEFMS

When a PR&C has been certified in CEFMS, the PR&C and corresponding line items will be transmitted to FEM. The diagram below shows tables where the data will be pulled from in order to send it to FEM. The diagram also shows how the data will be processed in FEM to load the appropriate FEM table so that the PR&C will be visible in FEM.



A database link will be established to periodically connect with the appropriate FEM database and send certified PR&Cs to FEM and place them in log tables. CEFMS software will provide a mechanism to determine which PR&Cs (those requested by FEM) need to be sent to prevent the transfer of duplicate or unnecessary data. FEM will process the log tables on a regular basis and move the data into the appropriate FEM tables. FEM will use the data provided from CEFMS together with data from the initial FEM Purchase Request (PR) to construct the certified PR&C in the FEM database and link it to work

orders or material items. The extra remarks for PR&Cs and line items will be inserted in the FEM long description table.

#### 4.1.2.1 Receive CEFMS PR&C Data.

The table below describes how data will be mapped from standard CEFMS tables into the FEM log tables. CEFMS must pass the original FEM Purchase Request Number (FEMPRNUM) back to FEM along with the CEFMS PR&C number. CEFMS must also use the FEM Purchase Request line numbers as the PR&C line number to ensure proper linkage between FEM tables can be established. CEFMS will be responsible for trapping error messages, ensuring data is corrected, and ensuring data is successfully sent to FEM.

| CEFMS Table                                    | SENDING SYSTEM                     |          |      | RECEIVING SYSTEM |                  |          |      |
|--|------------------------------------|----------|------|------------------|------------------|----------|------|
|  | CEFMS Column Name                  | Format   | Size | FEM Table        | FEMM Column Name | Format   | Size |
| <b>Receive the PR&amp;C Header Information</b> |                                    |          |      |                  |                  |          |      |
| PR_AMEND                                       | PRAC_NO                            | VARCHAR2 | 16   | PRACLOG          | PRACNUM          | VARCHAR2 | 16   |
| PR_AMEND                                       | PRAC_AMEND_REQ_NO                  | NUMBER   | 3    | PRACLOG          | AMENDNUM         | NUMBER   | 3    |
|  | FEMPRNUM                           | VARCHAR2 | 8    | PRACLOG          | PRNUM            | VARCHAR2 | 8    |
| PR_AMEND                                       | CERT_DATE                          | DATE     |      | PRACLOG          | CERTIFIEDDATE    | DATE     |      |
| PR_AMEND                                       | REQUEST_ORG_CODE                   | VARCHAR2 | 9    | PRACLOG          | FOAORG           | VARCHAR2 | 9    |
|  | <i>System Date/Time</i>            |          |      | PRACLOG          | TRANSDATE        | DATE     |      |
| <b>Receive the PR&amp;C Remarks</b>            |                                    |          |      |                  |                  |          |      |
|  | <i>System Generated Sequence #</i> |          |      | PRREMLOG         | TRANSID          | VARCHAR2 | 8    |
|  | <i>System Date/Time</i>            |          |      | PRREMLOG         | TRANSDATE        | DATE     |      |
| PR_FREE_FORM_REMARKS                           | PRAC_NO                            | VARCHAR2 | 16   | PRREMLOG         | PRACNUM          | VARCHAR2 | 16   |
| PR_FREE_FORM_REMARKS                           | PRAC_AMEND_REQ_NO                  | NUMBER   | 3    | PRREMLOG         | AMENDNUM         | NUMBER   | 3    |
| PR_FREE_FORM_REMARKS                           | REMARK_SEQ_NO                      | NUMBER   | 4    | PRREMLOG         | SEQUENCENUM      | NUMBER   | 4    |
| PR_FREE_FORM_REMARKS                           | PR_REMARK                          | VARCHAR2 | 76   | PRREMLOG         | REMARK           | VARCHAR2 | 100  |
| <b>Receive the PR&amp;C Line Items</b>         |                                    |          |      |                  |                  |          |      |
|  | <i>System Generated Sequence #</i> |          |      | PRLINLOG         | TRANSID          | VARCHAR2 | 8    |
|  | <i>System Date/Time</i>            |          |      | PRLINLOG         | TRANSDATE        | DATE     |      |
| PR_LINE_ITEM                                   | PRAC_NO                            | VARCHAR2 | 16   | PRLINLOG         | PRACNUM          | VARCHAR2 | 16   |
| PR_LINE_ITEM                                   | PRAC_LINE_NO                       | NUMBER   | 4    | PRLINLOG         | PRACLINENUM      | NUMBER   | 4    |
| PR_LINE_ITEM                                   | CERTIFIED_QTY                      | NUMBER   | 14,4 | PRLINLOG         | ORDERQTY         | NUMBER   | 14,4 |
| PR_LINE_ITEM                                   | CERTIFIED_US_AMT                   | NUMBER   | 14,2 | PRLINLOG         | LINECOST         | NUMBER   | 14,2 |
| PR_LINE_ITEM                                   | CERTIFIED_UNIT_PRICE_US            | NUMBER   | 16,3 | PRLINLOG         | UNITCOST         | NUMBER   | 16,3 |
| PR_LINE_ITEM                                   | RESOURCE_CODE                      | VARCHAR2 | 10   | PRLINLOG         | ITEMNUM          | VARCHAR2 | 10   |
| PR_LINE_ITEM                                   | WL_CODE                            | VARCHAR2 | 6    | PRLINLOG         | ORDERWORKITEM    | VARCHAR2 | 6    |
| PR_LINE_ITEM                                   | ITEM_UOM_CODE                      | VARCHAR2 | 2    | PRLINLOG         | ORDERUNIT        | VARCHAR2 | 8    |
| PR_LINE_ITEM                                   | EXP_DELIV_DATE                     | DATE     |      | PRLINLOG         | DELIVERYDATE     | DATE     |      |
| PR_LINE_ITEM                                   | WORK_CAT_CODE                      | VARCHAR2 | 6    | PRLINLOG         | WORKCATCODE      | VARCHAR2 | 6    |
| PR_LINE_ITEM                                   | WORK_CAT_ELEM_CODE                 | VARCHAR2 | 5    | PRLINLOG         | WORKCATELEM      | VARCHAR2 | 5    |
| ?  | FUNDING_WORK_ITEM                  | VARCHAR2 | 6    | PRLINLOG         | FUNDWORKITEM     | VARCHAR2 | 6    |
| PR_LINE_ITEM                                   | ITEM_DESC                          | VARCHAR2 | 2000 | PRLINLOG         | DESCRIPTION      | VARCHAR2 | 2000 |
| PR_LINE_ITEM                                   | WIR_WL_CODE                        | VARCHAR2 | 6    | PRLINLOG         | STOREROOM        | VARCHAR2 | 6    |

#### 4.1.2.2 Create FEM PR&Cs.

The table below describes how data will be mapped from the PRACLOG table to create the PR&C in FEM. Each PR&C record in the PRACLOG table will be used to create a FEM PR&C record (FEM PO Record). Only the first Sequence (SEQUENCENUM = 1) of PR&C remarks will be included as the FEM PR&C description. The remainder will be placed in a long description. Each FEM PR&C record created must also have a corresponding FEM status record (POSTATUS). Once the data from the PRACLOG table has been successfully inserted into the PO and POSTATUS tables, FEM will change the STATUS field in the PRACLOG table to 'PROCESSED'. Records marked processed will be retained in the PRACLOG table until the retention period is reached. The retention period will be defined in a FEM system variable used the FEM System Variables application.

| FEM Table                               | From Tables                    |          |      | FEM Table | To Tables       |          |      |
|---|--------------------------------|----------|------|-----------|-----------------|----------|------|
|   | FEM Column Name                | Format   | Size |           | FEM Column Name | Format   | Size |
| <b>Build FEM PR&amp;C Record</b>        |                                |          |      |           |                 |          |      |
|   | 'Y'                            |          |      | PO        | BUYAHEAD        | YORN     |      |
|   | 'CEFMS'                        |          |      | PO        | CHANGEBY        | VARCHAR2 | 18   |
| PRACLOG                                 | CERTIFIEDDATE                  | DATE     |      | PO        | CHANGEDATE      | DATE     |      |
|   | 'USD'                          |          |      | PO        | CURRENCYCODE    | VARCHAR2 | 8    |
| PRREMLOG                                | REMARK                         | VARCHAR2 | 76   | PO        | DESCRIPTION     | VARCHAR2 | 100  |
|   | 'N'                            |          |      | PO        | HISTORYFLAG     | YORN     |      |
|   | 'N'                            |          |      | PO        | INCLUSIVE1      | YORN     |      |
|   | 'N'                            |          |      | PO        | INCLUSIVE2      | YORN     |      |
|   | 'N'                            |          |      | PO        | INCLUSIVE3      | YORN     |      |
|   | 'N'                            |          |      | PO        | INCLUSIVE4      | YORN     |      |
|   | 'N'                            |          |      | PO        | INCLUSIVE5      | YORN     |      |
|   | 'N'                            |          |      | PO        | PAYONRECEIPT    | YORN     |      |
| PRACLOG                                 | PRACNUM                        | VARCHAR2 | 16   | PO        | PONUM           | VARCHAR2 | 16   |
| PR                                      | PR3 (PRTYPE)                   | VARCHAR2 | 2    | PO        | POTYPE          | VARCHAR2 | 8    |
| PRACLOG                                 | FOAORG                         | VARCHAR2 | 9    | PO        | PO1 (FOA_ORG)   | VARCHAR2 | 9    |
| PRACLOG                                 | PRNUM                          | VARCHAR2 | 16   | PO        | PO2 (PRNUM)     | VARCHAR2 | 16   |
| PRACLOG                                 | AMENDNUM                       | NUMBER   | 3    | PO        | PO6 (AMENDNUM)  | NUMBER   | 3    |
|   | 1                              |          |      | PO        | PRIORITY        | INTEGER  |      |
|   | 'NONE'                         |          |      | PO        | RECIEPTS        | VARCHAR2 | 20   |
| PR                                      | REQUIREDDATE                   | DATE     |      | PO        | REQUIREDDATE    | DATE     |      |
|   | 'CERTIFIED'                    |          |      | PO        | STATUS          | VARCHAR2 | 6    |
| PRACLOG                                 | CERTIFIEDDATE                  | DATE     |      | PO        | STATUSDATE      | DATE     |      |
| PR                                      | PR3 (PRTYPE)                   | VARCHAR2 | 2    | PO        | PO3 (PRTYPE)    | VARCHAR2 | 2    |
|   | 'N'                            |          |      | PO        | WFACTIVE        | YORN     |      |
|   |                                |          |      |           |                 |          |      |
| <b>Build FEM PR&amp;C status Record</b> |                                |          |      |           |                 |          |      |
|   | 'CEFMS'                        |          |      | POSTATUS  | CHANGEBY        | VARCHAR2 | 18   |
| PRACLOG                                 | CERTIFIEDDATE                  | DATE     |      | POSTATUS  | CHANGEDATE      | DATE     |      |
|   | 'Certified by CEFMS Interface' |          |      | POSTATUS  | MEMO            | VARCHAR2 | 50   |
| PRACLOG                                 | PRACNUM                        | VARCHAR2 | 16   | POSTATUS  | PONUM           | VARCHAR2 | 16   |

| From Tables |                 |        |      | To Tables |                 |          |      |
|-------------|-----------------|--------|------|-----------|-----------------|----------|------|
| FEM Table   | FEM Column Name | Format | Size | FEM Table | FEM Column Name | Format   | Size |
|             | 'CERTIFIED'     |        |      | POSTATUS  | STATUS          | VARCHAR2 | 6    |

#### 4.1.2.3 Create FEM PR&C Line Items.

The table below describes how data will be mapped from the PRLINLOG table to create the PR&C line items in FEM. Each record in the PRLINLOG table will be used to create a FEM PR&C line item record (FEM POLINE Record). The PR Number field (PRNUM) in the PRACLOG table will be used to determine which PRLINE records will be used to provide additional Line Item data in order to complete the FEM PRAC Line Item record. Only the first 100 characters of the description will be loaded into the FEM PRAC Line Item Description. However, the entire description will be placed in the Long Description table.

The Order Unit Code obtained from CEFMS must be converted back to FEM's Order Unit Description using the Order Unit table.

| From Tables                                 |                         |            |      | To Tables |                        |          |      |
|---|-------------------------|------------|------|-----------|------------------------|----------|------|
| FEM Table                                   | FEM Column Name         | Format     | Size | FEM Table | FEM Column Name        | Format   | Size |
| <b>Build FEM PR&amp;C Line Item Records</b> |                         |            |      |           |                        |          |      |
|   | 'N'                     |            |      | POLINE    | CHARGESTORE            | YORN     |      |
| PrLINE                                      | CONVERSION              | NUMBER15,2 |      | POLINE    | CONVERSION             | NUMBER   | 15,2 |
| PRLINLOG                                    | DESCRIPTION             | VARCHAR2   | 2000 | POLINE    | DESCRIPTION            | VARCHAR2 | 100  |
|   | 'CEFMS'                 |            |      | POLINE    | ENTERBY                | VARCHAR2 | 18   |
|   | <i>System Date</i>      |            |      | POLINE    | ENTERDATE              | DATE     |      |
|   | 'N'                     |            |      | POLINE    | INSPECTIONREQUIRE<br>D | YORN     |      |
| PRLINLOG                                    | ITEMNUM                 | VARCHAR2   | 10   | POLINE    | ITEMNUM                | VARCHAR2 |      |
| PRLINLOG                                    | LINECOST                | NUMBER     | 14,2 | POLINE    | LINECOST               | NUMBER   | 10,2 |
| PRLINLOG                                    | LINECOST                | NUMBER     | 16,3 | POLINE    | LOADED COST            | NUMBER   | 10,2 |
| ORDERUNIT                                   | ORDERUNIT               | VARCHAR2   | 15   | POLINE    | ORDERUNIT              | VARCHAR2 | 15   |
| PRLINLOG                                    | ORDERWORKITEM           | VARCHAR2   | 6    | POLINE    | PL1<br>(ORDERWORKITEM) | VARCHAR2 | 6    |
| PRLINLOG                                    | FUNDWORKITEM            | VARCHAR2   | 6    | POLINE    | PL2 (FUNDWORKITEM)     | VARCHAR2 | 6    |
| PRLINLOG                                    | WORKCATCODE             | VARCHAR2   | 6    | POLINE    | PL3 (WORKCATCODE)      | VARCHAR2 | 6    |
| PRLINLOG                                    | WORKCATELEM             | VARCHAR2   | 5    | POLINE    | PL4 (WORKCATELEM)      | VARCHAR2 | 5    |
|   | <i>System Generated</i> |            |      | POLINE    | POLINEID               | INTEGER  |      |
| PRLINLOG                                    | PRACLINENUM             | INTEGER    |      | POLINE    | POLINENUM              | INTEGER  |      |
| PRLINLOG                                    | PRACNUM                 | VARCHAR2   | 16   | POLINE    | PONUM                  | VARCHAR2 | 16   |
|   | 'N'                     |            |      | POLINE    | PRORATESERVICE         | YORN     |      |
|   | 'N'                     |            |      | POLINE    | RECEIPTREQD            | YORN     |      |
|   | 'N'                     |            |      | POLINE    | RECEIPTS COMPLETE      | YORN     |      |
|   | 0                       |            |      | POLINE    | RECEIVEDTOTALCOST      | NUMBER   | 10,2 |
|   | 0                       |            |      | POLINE    | REJECTDQTY             | NUMBER   | 15,2 |
| PRLINE                                      | REQDELIVERYDATE         | DATE       |      | POLINE    | REQDELIVERYDATE        | DATE     |      |
| PRLINE                                      | REQUESTEDBY             | VARCHAR2   | 18   | POLINE    | REQUESTEDBY            | VARCHAR2 | 18   |

| From Tables |                            |          |      | To Tables |                 |          |      |
|-------------|----------------------------|----------|------|-----------|-----------------|----------|------|
| FEM Table   | FEM Column Name            | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
| PRLINE      | SCHARGECODE                | VARCHAR2 | 8    | POLINE    | SCHARGECODE     | VARCHAR2 | 8    |
| PRLINE      | SERVICE                    | YORN     |      | POLINE    | SERVICE         | YORN     |      |
| PRLINE      | STORELOC                   | VARCHAR2 | 15   | POLINE    | STORELOC        | VARCHAR2 | 15   |
|             | 0                          |          |      | POLINE    | TAX1            | NUMBER   | 10,2 |
|             | 0                          |          |      | POLINE    | TAX2            | NUMBER   | 10,2 |
|             | 0                          |          |      | POLINE    | TAX3            | NUMBER   | 10,2 |
|             | 0                          |          |      | POLINE    | TAX4            | NUMBER   | 10,2 |
|             | 0                          |          |      | POLINE    | TAX5            | NUMBER   | 10,2 |
| PRLINLOG    | EXPECTED_DELIVER<br>Y_DATE |          |      | POLINE    | VENDELIVERYDATE | DATE     |      |
| PRLINE      | WONUM                      |          |      | POLINE    | WONUM           | VARCHAR2 | 10   |

#### 4.1.2.4 Create FEM PR&C Long Descriptions.

The table below describes how to map remarks data from the PRREMLOG table into the FEM LONGDESCRIPTION table. PR&C remarks are maintained by CEFMS as a sequence of 76 character records. These records must be linked together using the PRREMLOG Sequence numbers converted to a LONG data format and inserted into FEM's LONGDESCRIPTION table. The system must generate a Long Description key value (LDKEY) when the record is inserted into the table. This same value must also be inserted into the LDKEY field in the PO table where PRACNUM in the PRREMLOG table equals the PONUM in the PO table.

| From Tables  |                         |          |      | To Tables        |                 |          |      |
|--|-------------------------|----------|------|------------------|-----------------|----------|------|
| FEM Table  | FEM Column Name         | Format   | Size | FEM Table        | FEM Column Name | Format   | Size |
| <b>Build Long Description Records for PR&amp;C Remarks</b> |                         |          |      |                  |                 |          |      |
|  | <i>System Generated</i> |          |      | LONG DESCRIPTION | LDKEY           | INTEGER  |      |
|  | 'DESCRIPTION'           |          |      | LONG DESCRIPTION | LDOWNER         | VARCHAR2 | 18   |
|  | 'PO'                    |          |      | LONG DESCRIPTION | LDOWNERTABLE    | VARCHAR2 | 18   |
| PRREMLOG   | REMARK                  | VARCHAR2 | 76   | LONG DESCRIPTION | LDTEXT          | LONG     |      |

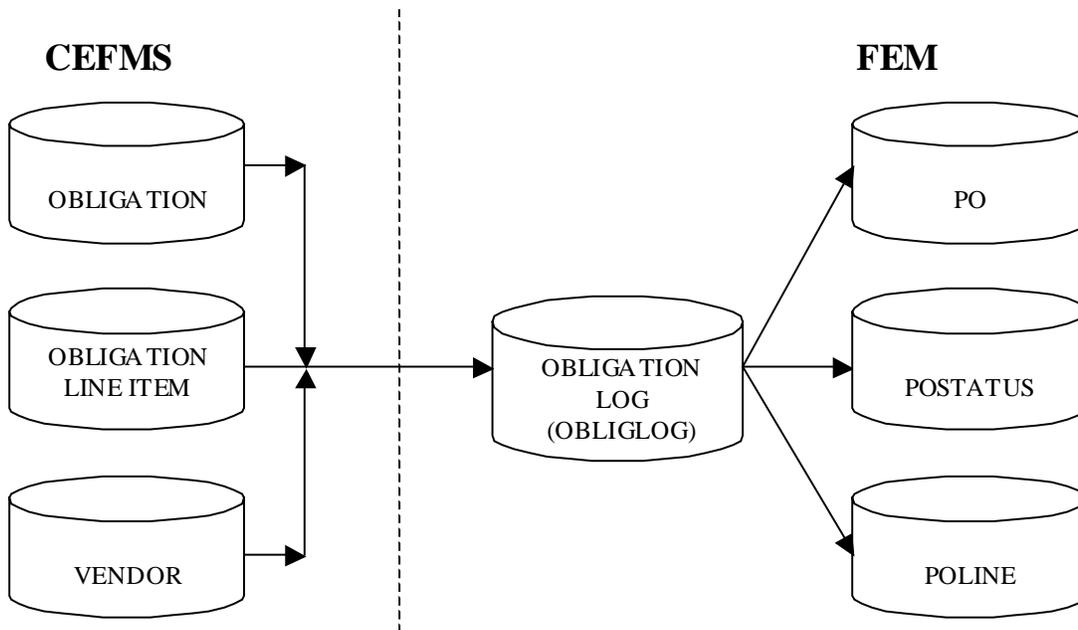
#### 4.1.2.5 Create FEM PR&C Line Item Long Descriptions.

The table below describes how to map remarks data from the PRLINLOG table into the FEM LONGDESCRIPTION table. PR&C Line Descriptions are maintained by CEFMS as a 2000 character field. Since this field is larger than the FEM line item description it must be converted to a LONG data format and inserted into FEM's LONGDESCRIPTION table. The system must generate a Long Description key value (LDKEY) when the record is inserted into the table. This same value must also be inserted into the LDKEY field in the POLINE table where PRACNUM in the PRLINLOG table equals the PONUM in the PO table and the PRACLINENUM equals the POLINENUM.

| From Tables  |                         |          |      | To Tables        |                 |          |      |
|--|-------------------------|----------|------|------------------|-----------------|----------|------|
| FEM Table  | FEM Column Name         | Format   | Size | FEM Table        | FEM Column Name | Format   | Size |
| <b>Build Long Description Records for PR&amp;C Line Item Remarks</b> |                         |          |      |                  |                 |          |      |
|  | <i>System Generated</i> |          |      | LONG DESCRIPTION | LDKEY           | INTEGER  |      |
|  | 'DESCRIPTION'           |          |      | LONG DESCRIPTION | LDOWNER         | VARCHAR2 | 18   |
|  | 'POLINE'                |          |      | LONG DESCRIPTION | LDOWNERTABLE    | VARCHAR2 | 18   |
| PRLINLOG   | DESCRIPTION             | VARCHAR2 | 2000 | LONG DESCRIPTION | LDTEXT          | LONG     |      |

### 4.1.3 Processing Obligation Data from CEFMS

When a PR&C has been obligated in CEFMS, the PR&C and corresponding line items will be updated in FEM. The diagram below shows tables where the data will be pulled in order to send it to FEM. The diagram also shows how the data will be processed in FEM to load the appropriate FEM table so that the obligation data will be visible in FEM.



A database link will be established to periodically connect with the appropriate FEM database and send Obligation data to FEM and place it in log tables. CEFMS software will provide a mechanism to determine which obligations (those for PR&Cs requested by FEM) need to be sent to prevent the transfer of duplicate or unnecessary data. CEFMS will also send de-obligations to FEM so FEM can determine the expected quantity to receive. FEM will process the log tables on a regular basis and move the data into the appropriate FEM tables.

#### 4.1.3.1 Receive CEFMS Obligation Data.

The table below describes how data will be mapped from standard CEFMS tables into the FEM log tables. CEFMS will be responsible for trapping error messages, ensuring date is corrected, and ensuring data is successfully sent to FEM. If the PR&C is for a Credit Card purchase, CEFMS will send the Third Party Vendor's Name. Otherwise CEFMS will send the Vendor's Name.

| CEFMS Table                            | SENDING SYSTEM          |        |      | RECEIVING SYSTEM |                 |          |      |
|--|-------------------------|--------|------|------------------|-----------------|----------|------|
|  | CEFMS Column Name       | Format | Size | FEM Table        | FEM Column Name | Format   | Size |
| <b>Send the Obligation Information</b> |                         |        |      |                  |                 |          |      |
|  | <i>System Generated</i> |        |      | OBLIGLOG         | TRANSID         | VARCHAR2 | 8    |
|  | <i>System Date/Time</i> |        |      | OBLIGLOG         | TRANSDATE       | DATETIME |      |

| CEFMS Table          | SENDING SYSTEM          |          |      | RECEIVING SYSTEM |                 |          |      |
|----------------------|-------------------------|----------|------|------------------|-----------------|----------|------|
|                      | CEFMS Column Name       | Format   | Size | FEM Table        | FEM Column Name | Format   | Size |
| OBLIGATION LINE ITEM | PRAC_NO                 | VARCHAR2 | 16   | OBLIGLOG         | PRACNUM         | VARCHAR2 | 16   |
| OBLIGATION LINE ITEM | PRAC_LINE_NO            | NUMBER   | 4    | OBLIGLOG         | PRACLINNUM      | NUMBER   | 4    |
| OBLIGATION LINE ITEM | OLI_APPROVED_QTY        | NUMBER   | 14,4 | OBLIGLOG         | QUANTITY        | NUMBER   | 14,4 |
| OBLIGATION LINE ITEM | OLI_APPROVED_UNIT_COST  | NUMBER   | 16,3 | OBLIGLOG         | UNITCOST        | NUMBER   | 16,3 |
| OBLIGATION LINE ITEM | OLI_APPROVED_AMOUNT     | NUMBER   | 14,2 | OBLIGLOG         | LINECOST        | NUMBER   | 14,2 |
| OBLIGATION LINE ITEM | OBLI_NO                 | VARCHAR2 | 16   | OBLIGLOG         | OBLIGNUM        | VARCHAR2 | 16   |
| OBLIGATION           | THIRD_PARTY_VENDOR_NAME | VARCHAR2 | 60   | OBLIGLOG         | VENDOR          | VARCHAR2 | 60   |
| VENDOR               | VENDOR_NAME             |          |      |                  |                 |          |      |
| OBLIGATION           | OBLI_RECVD_DATE         | DATE     |      | OBLIGLOG         | OBLIGDATE       | DATE     |      |

#### 4.1.3.2 Update FEM PR&C Status and Create Status Records.

The table below describes how data will be mapped from the OBLIGATIONLOG table to update the PR&C in FEM. Each record in the OBLIGATIONLOG table will be used to update the status of the FEM PR&C record and create a corresponding FEM status record (POSTATUS). OBLIGATIONLOG records will also be used to update the corresponding FEM PR&C Line Item with the Obligation Number, Unit Cost, Line Cost, and Vendor. Once the data from the OBLIGATIONLOG table has been successfully processed, FEM will change the STATUS field in the OBLIGATIONLOG table to 'PROCESSED'. Records marked processed will be retained in the OBLIGATIONLOG table until the retention period is reached. The retention period will be defined in a FEM system variable used the FEM System Variables application.

**Note:** If a PR&C Line Item is split between multiple obligations, FEM will put the additional information in the Long Description associated with the Obligated Quantity.

| FEM Table                         | From Tables     |          |      | To Tables |                 |          |      |
|-----------------------------------|-----------------|----------|------|-----------|-----------------|----------|------|
|                                   | FEM Column Name | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
| <b>Update FEM PR&amp;C Status</b> |                 |          |      |           |                 |          |      |
|                                   | 'OBLIGATED'     |          |      | PO        | STATUS          | VARCHAR2 | 10   |
| OBLIGLOG                          | OBLIGDATE       | DATE     |      | PO        | STATUSDATE      | DATE     |      |
| OBLIGLOG                          | TRANSDATE       | DATE     |      | PO        | CHANGEDATE      | DATE     |      |
|                                   | 'CEFMS'         |          |      | PO        | CHANGEBY        | VARCHAR2 | 18   |
| <b>Create Status Record</b>       |                 |          |      |           |                 |          |      |
| OBLIGLOG                          | PRACNUM         | VARCHAR2 | 16   | POSTATUS  | PONUM           | VARCHAR2 | 16   |
|                                   | 'OBLIGATED'     |          |      | POSTATUS  | STATUS          | VARCHAR2 | 10   |
| OBLIG LOG                         | OBLIGDATE       | DATE     |      | POSTATUS  | CHANGEDATE      | DATE     |      |
|                                   | 'CEFMS'         |          |      | POSTATUS  | CHANGEBY        | VARCHAR2 | 18   |

### 4.1.3.3 Update FEM PR&C Line Items.

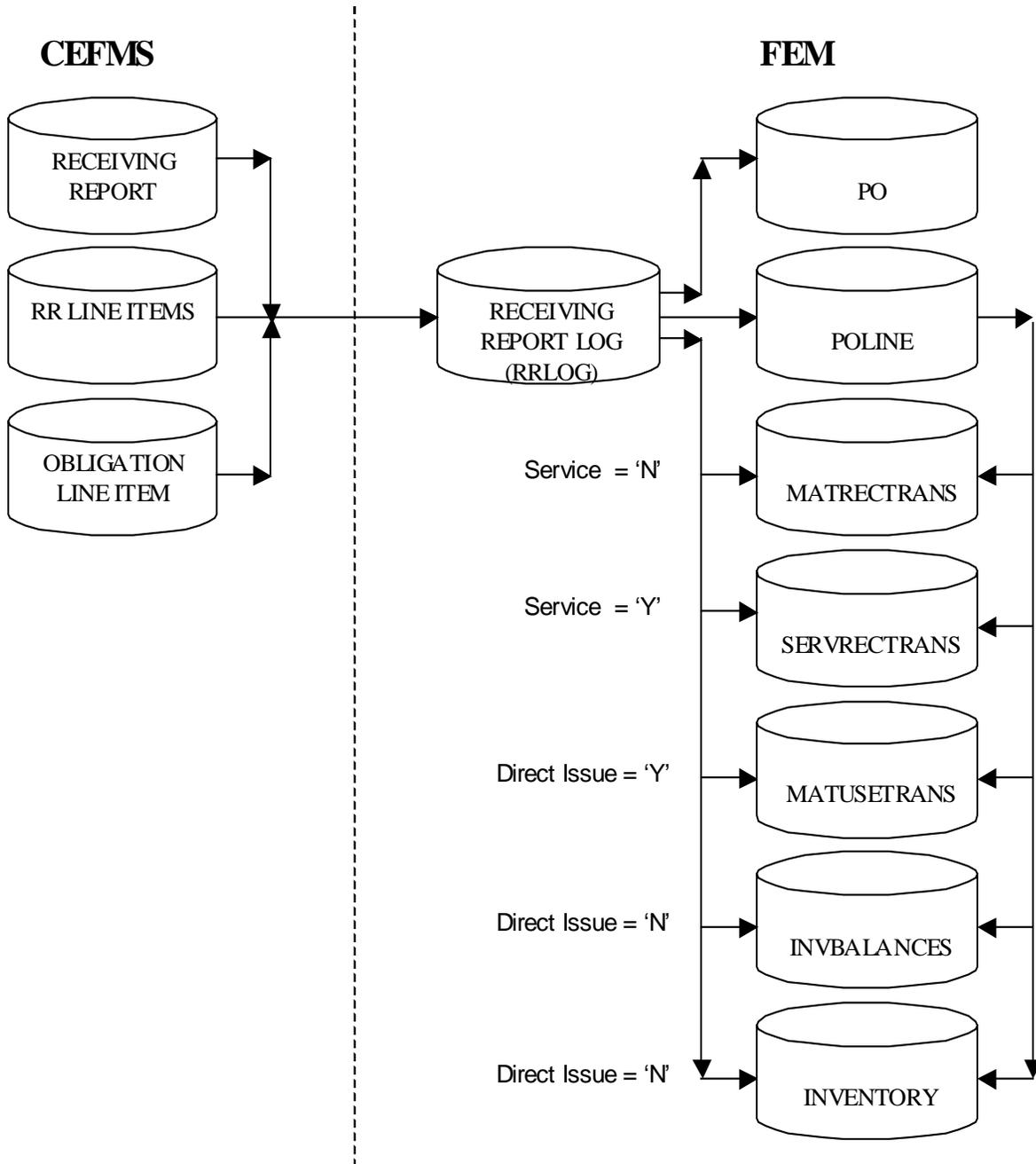
The table below describes how data will be mapped from the OBLIGATIONLOG table to update the corresponding FEM PR&C Line Item with the Obligated Quantity. The Obligation Quantity will be added to the existing value. The Obligation Number, Unit Cost, Line Cost, and Vendor will be placed in the Long description table and linked to Obligated Quantity on the POLINE table.. Corresponding FEM PR&C Line Items are determined by joining tables based on matching the OBLIGATIONLOG PRACNUM and PRACLINENUM fields to the POLINE PONUM and POLINENUM fields respectively.

|  |                         |          |      | From Tables     |                 |          |      | To Tables |                 |        |      |
|--|-------------------------|----------|------|-----------------|-----------------|----------|------|-----------|-----------------|--------|------|
| FEM Table  | FEM Column Name         | Format   | Size | FEM Table       | FEM Column Name | Format   | Size | FEM Table | FEM Column Name | Format | Size |
| <b>Update FEM PR&amp;C Line Items</b>                      |                         |          |      |                 |                 |          |      |           |                 |        |      |
| OBLIGLOG   | QUANTITY                | NUMBER   | 14,4 | POLINE          | PL6 (OBLIQTY)   | DATE     |      |           |                 |        |      |
| <b>Update Log Description for Obligated Quantity Field</b> |                         |          |      |                 |                 |          |      |           |                 |        |      |
|  | <i>System Generated</i> |          |      | LONGDESCRIPTION | LDKEY           | INTEGER  |      |           |                 |        |      |
|  | 'PL6'                   |          |      | LONGDESCRIPTION | LDOWNER         | VARCHAR2 | 18   |           |                 |        |      |
|  | 'POLINE'                |          |      | LONGDESCRIPTION | LDOWNERTABLE    | VARCHAR2 | 18   |           |                 |        |      |
| OBLIGLOG   | UNITCOST                | NUMBER   | 16,3 | LONGDESCRIPTION | LDTEXT          | LONG     |      |           |                 |        |      |
| OBLIGLOG   | LINECOST                | NUMBER   | 14,2 | LONGDESCRIPTION | LDTEXT          | LONG     |      |           |                 |        |      |
| OBLIGLOG   | OBLIGNUM                | VARCHAR2 | 16   | LONGDESCRIPTION | LDTEXT          | LONG     |      |           |                 |        |      |
| OBLIGLOG   | OBLIGATE                | DATE     |      | LONGDESCRIPTION | LDTEXT          | LONG     |      |           |                 |        |      |
| OBLIGLOG   |                         | VARCHAR2 | 9    | LONGDESCRIPTION | LDTEXT          | LONG     |      |           |                 |        |      |

FEM will compute a new Line Cost and Unit Cost based on the Unit and Line Costs associated with the Obligation.

#### 4.1.4 Processing Receiving Report Data from CEFMS

When a Receiving Report is processed in CEFMS for a PR&C that was requested by FEM, CEFMS will send the receiving information to FEM. The diagram below shows tables where the data will be pulled in order to send it to FEM. The diagram also shows how the data will be processed in FEM to load the appropriate FEM tables so that the receipts will be visible in FEM.



A database link will be established to periodically connect with the appropriate FEM database and send Receiving Report data to FEM and place it in log tables. CEFMS software will provide a mechanism to determine which Receiving Reports (those for PR&Cs requested by FEM) need to be sent to prevent the transfer of duplicate or unnecessary data. FEM will process the log tables on a regular basis and move the data into the appropriate FEM tables. The appropriate transaction table (Material or Service) will be updated depending on whether or not the item being received is a material item or a service. The material usage transaction table will be updated for the appropriate work order if the line item is flagged as a direct issue. Otherwise, the inventory balances inventory costs will be updated.

**4.1.4.1 Receive the CEFMS Receiving Report.**

The table below describes how data will be mapped from standard CEFMS tables into the FEM log tables. A record will be created in the Receiving Report Log table for each record in the CEFMS Receiving Report Line Item table. FEM will require the PR&C number and Line Item numbers in order to correctly update FEMS database. The PR&C number will be obtained by joining the Obligation Line Item table and the Receiving Report Line Items table using the Obligation Number and Line Item Number. CEFMS will be responsible for trapping error messages, ensuring data is corrected, and ensuring data is successfully sent to FEM.

Note: The PR&C will be closed in FEM when Quantity Received equal the Obligated quantity on all line item of the PR&C.)

| CEFMS Table                                     | CEFMS Column Name       | Format   | Size | FEM Table | FEMM Column Name | Format   | Size |
|---|-------------------------|----------|------|-----------|------------------|----------|------|
| <b>Send Receiving Report Header Information</b> |                         |          |      |           |                  |          |      |
|   | <i>System Generated</i> |          |      | RRLOG     | TRANSID          | VARCHAR2 | 8    |
|   | <i>System Date/Time</i> |          |      | RRLOG     | TRANSDATE        | DATE     |      |
| RECEIVING RPT                                   | RR_NO                   | VARCHAR2 | 6    | RRLOG     | RRNUM            | VARCHAR2 | 6    |
| RECEIVING RPT                                   | OBLI_NO                 | VARCHAR2 | 16   | RRLOG     | OBLIGNUM         | VARCHAR2 | 16   |
| RECEIVING RPT                                   | GOODS_SERV_RECDDATE     | DATE     |      | RRLOG     | RECEIVEDDATE     | DATE     |      |
| RECEIVING RPT                                   | REC_ORG_CODE            | VARCHAR2 | 7    | RRLOG     | RECEIVEORG       | VARCHR2  | 7    |
| <b>Send PR&amp;C number</b>                     |                         |          |      |           |                  |          |      |
| OBLIGATION LINE ITEM                            | PRAC_NO                 | VARCHAR2 | 16   | RRLOG     | PRACNUM          | VARCHAR2 | 16   |
| OBLIGATION LINE ITEM                            | PRAC_LINE_NO            | NUMBER   | 4,0  | RRLOG     | PRACLINENUM      | NUMBER   | 4,0  |
| <b>Send Line Item Information</b>               |                         |          |      |           |                  |          |      |
| RR LINE ITEMS                                   | LINE_ITEM_NO            | VARCHAR2 | 6    | RRLOG     | RRLINENUM        | VARCHAR2 | 6    |
| RR LINE ITEMS                                   | LINE_ITEM_QTY           | NUMBER   | 14,4 | RRLOG     | RECEIVEDQTY      | NUMBER   | 14,4 |
| RR LINE ITEMS                                   | LINE_ITEM_AMT           | NUMBER   | 14,2 | RRLOG     | RECEIVEDAMT      | NUMBER   | 14,2 |

**4.1.4.2 Update the FEM PR&C.**

The table below describes how data will be mapped from the Receiving Report and Receiving Report Line Item log tables to update the PR&C in FEM. Each record in the Receiving Report log table will be used to update the FEM PR&C record to indicate the some receipts have been processed for the PR&C. Receiving Report log records will also be use to update the corresponding FEM PR&C Line Item with the Receiving Report Number. Once the data from the Receiving Report and Receiving Report Line Item

log tables have been successfully processed, FEM will change the STATUS field in the tables to 'PROCESSED'. Records marked processed will be retained in the Receiving Report and Receiving Report Line Item log tables until the retention period is reached. The retention period will be defined in a FEM system variable used the FEM System Variables application.

| From Tables  |                           |        |      | To Tables |                   |          |      |
|--|---------------------------|--------|------|-----------|-------------------|----------|------|
| FEM Table  | FEM Column Name           | Format | Size | FEM Table | FEM Column Name   | Format   | Size |
| <b>Update FEM PR&amp;C to show some items have been received</b> |                           |        |      |           |                   |          |      |
|  | 'Y'                       |        |      | PO        | RECEIPTS          | YORN     |      |
|  | 'PARTIAL' or 'COMPLETE'   |        |      | PO        | STATUS            | VARCHAR2 | 8    |
| <b>Update FEM PR&amp;C Line Item Information</b>                 |                           |        |      |           |                   |          |      |
| RRLOG  | RECIEVEDQTY               | NUMBER | 14,4 | POLINE    | RECEIVEDQTY       | NUMBER   | 15,2 |
| RRLOG  | RECEIVEDAMT               | NUMBER | 14,2 | POLINE    | RECEIVEDTOTALCOST | NUMBER   | 14,2 |
| <i>Compute</i>   | RECEIVEDAMT / RECEIVEDQTY |        |      | POLINE    | RECIEVEDUNITCOST  | NUMBER   | 14,2 |
|  |                           |        |      |           |                   |          |      |

#### 4.1.4.3 Create Receipt Transactions.

The table below describes how data will be mapped from the Receiving Report and Receiving Report Line Item log tables to insert a record in the PR&C Material Receipt Transaction table (MATRECTRANS) or the Service Receipts Transaction table (SERVRECTRANS) in FEM. Receiving Report Line Item log records will be use to insert a receipt transaction for each line item being received. FEM will determine which transaction table needs to be updated based on the Service column in the corresponding FEM PR&C line item record. Example SERVICE = 'Y' means the receipt is a service so only the Service Receipt table need to be updated.

| From Tables   |                           |          |      | To Tables   |                 |          |      |
|---|---------------------------|----------|------|-------------|-----------------|----------|------|
| FEM Table   | FEM Column Name           | Format   | Size | FEM Table   | FEM Column Name | Format   | Size |
| <b>Insert Material Receipt Transactions if Service = ' N'</b> |                           |          |      |             |                 |          |      |
| <i>Compute</i>  | RECEIVEDAMT / RECEIVEDQTY |          |      | MATRECTRANS | ACTUALCOST      | NUMBER   | 10,2 |
| RRLOG   | RECEIVEDDATE              | DATE     |      | MATRECTRANS | ACTUALDATE      | DATE     |      |
| POLINE  | CONVERSION                | NUMBER   | 15,2 | MATRECTRANS | CONVERSION      | NUMBER   | 15,2 |
| INVBALANCES   | CURBAL                    |          |      | MATRECTRANS | CURBAL          | NUMBER   | 15,2 |
|   | 'USD'                     |          |      | MATRECTRANS | CURRENCYCODE    | VARCAHR2 | 8    |
| POLINE  | DESCRIPTION               | VARCHAR2 | 100  | MATRECTRANS | DESCRIPTION     | VARCAHR2 | 100  |
|   | 'CEFMS'                   |          |      | MATRECTRANS | ENTERBY         | VARCAHR2 | 18   |
| POLINE  | EQNUM                     | VARCHAR2 | 20   | MATRECTRANS | EQNUM           | VARCAHR2 | 20   |
| POLINE  | ISSUE                     | YORN     |      | MATRECTRANS | ISSUE           | YORN     |      |
|   | 'RECEIPT'                 |          |      | MATRECTRANS | ISSUETYPE       | VARCAHR2 | 8    |
| POLINE  | ITEMNUM                   | VARCHAR2 | 15   | MATRECTRANS | ITEMNUM         | VARCAHR2 | 15   |
| RRLOG   | RRNUM                     | VARCHAR2 | 6    | MATRECTRANS | IT7 (RRNUM)     | VARCHAR2 | 6    |
| RRLOG   | RECEIVEDAMT               | NUMBER   | 14,2 | MATRECTRANS | LINECOST        | NUMBER   | 10,2 |
| RRLOG   | RECEIVEDAMT               | NUMBER   | 14,2 | MATRECTRANS | LOADED COST     | NUMBER   | 10,2 |
| POLINE  | LOCATION                  | VARCHAR2 | 15   | MATRECTRANS | LOCATION        | VARCHAR2 | 15   |
|   | System Generated          |          |      | MATRECTRANS | MATRECTRANSID   | INTEGER  |      |
| INVENTORY   | AVGCOST                   | NUMBER   | 10,2 | MATRECTRANS | OLDAVGCOST      | NUMBER   | 10,2 |

| From Tables   |                                  |          |      | To Tables    |                  |          |      |
|---|----------------------------------|----------|------|--------------|------------------|----------|------|
| FEM Table   | FEM Column Name                  | Format   | Size | FEM Table    | FEM Column Name  | Format   | Size |
| POLINE  | POLINENUM                        | INTEGER  |      | MATRECTRANS  | POLINENUM        | INTEGER  |      |
| POLINE  | PONUM                            | VARCHAR2 | 16   | MATRECTRANS  | PONUM            | VARCHAR2 | 16   |
|   | 'N'                              |          |      | MATRECTRANS  | PRORATED         | YORN     |      |
| RRLOG   | RECEIVEDQTY                      | NUMBER   | 14,4 | MATRECTRANS  | QUANTITY         | NUMBER   | 15,2 |
|   | 0                                |          |      | MATRECTRANS  | REJECTEDQTY      | NUMBER   | 15,2 |
| POLINE  | REQUESTEDBY                      | VARCHAR2 | 20   | MATRECTRANS  | REQUESTEDBY      | VARCHAR2 | 20   |
| INVENTORY   | BINNUM                           | VARCHAR2 | 8    | MATRECTRANS  | TOBIN            | VARCHAR2 | 8    |
| POLINE  | STORELOC                         | VARCHAR2 | 15   | MATRECTRANS  | TOSTORELOC       | VARCHAR2 | 15   |
|   | <i>System Date</i>               | DATE     |      | MATRECTRANS  | TRANSDATE        | DATE     |      |
| <i>Compute</i>  | <i>RECEIVEDAMT / RECEIVEDQTY</i> |          |      | MATRECTRANS  | UNITCOST         | NUMBER   | 10,2 |
| POLINE  | WONUM                            | VARCHAR2 | 10   | MATRECTRANS  | WONUM            | VARCHAR2 | 10   |
| <b>Insert Service Receipt Transactions If Service = 'Y'</b> |                                  |          |      |              |                  |          |      |
|   | 'Y'                              |          |      | SERVRECTRANS | APPROVED         | YORN     |      |
|   | 'USD'                            |          |      | SERVRECTRANS | CURRENCYCODE     | VARCHAR2 | 8    |
| <i>Compute</i>  | <i>RECEIVEDAMT / RECEIVEDQTY</i> |          |      | SERVRECTRANS | CURRENCYLINECOST | VARCHAR2 | 8    |
| POLINE  | DESCRIPTION                      | VARCHAR2 | 100  | SERVRECTRANS | DESCRIPTION      | VARCHAR2 | 100  |
|   | 'CEFMS'                          |          |      | SERVRECTRANS | ENTERBY          | VARCHAR2 | 18   |
| RRLOG   | RECEIVEDDATE                     | DATE     |      | SERVRECTRANS | ENTERDATE        | DATE     |      |
| POLINE  | EQNUM                            | VARCHAR2 | 15   | SERVRECTRANS | EQNUM            | VARCHAR2 | 15   |
| RRLOG   | RECEIVEDAMT                      | NUMBER   | 14,2 | SERVRECTRANS | LINECOST         | NUMBER   | 10,2 |
| RRLOG   | RECEIVEDAMT                      | NUMBER   | 14,2 | SERVRECTRANS | LOADED COST      | NUMBER   | 15,2 |
| POLINE  | LOCATION                         | VARCHAR2 | 15   | SERVRECTRANS | LOCATION         | VARCHAR2 | 15   |
| POLINE  | POLINENUM                        | INTEGER  |      | SERVRECTRANS | POLINENUM        | INTEGER  |      |
| POLINE  | PONUM                            | VARCHAR  | 16   | SERVRECTRANS | PONUM            | VARCHAR  | 16   |
|   | 'N'                              |          |      | SERVRECTRANS | PRORATED         | YORN     |      |
| RRLOG   | RECEIVEDQTY                      | NUMBER   | 14,2 | SERVRECTRANS | QUANTITY         | NUMBER   | 15,2 |
|   | 'Y'                              |          |      | SERVRECTRANS | ROLLUP           | YORN     |      |
|   | <i>System Generated</i>          |          |      | SERVRECTRANS | SERVRECTRANSID   | INTEGER  |      |
| RRLOG   | RRNUM                            | VARCHA2  | 6    | SERVRECTRANS | SS3 (RRNUM)      | VARCHAR2 | 6    |
| POLINE  | SCHARGECODE                      | VARCHAR2 | 8    | SERVRECTRANS | SS1 (STDSERVICE) | VARCHAR2 | 8    |
|   | <i>System Date</i>               |          |      | SERVRECTRANS | TRANSDATE        | DATE     |      |
| <i>Compute</i>  | <i>RECEIVEDAMT / RECEIVEDQTY</i> |          |      | SERVRECTRANS | UNITCOST         | NUMBER   | 10,2 |
| POLINE  | WONUM                            | VARCHAR2 | 10   | SERVRECTRANS | WONUM            | VARCHAR2 | 10   |

#### 4.1.4.4 Create Material Use Transactions.

If the Direct Issue flag is set (DIRECTISSUE = 'Y') on the FEM PR&C Line Item record the Material Use Transaction table needs to be updated. The table below describes how data will be mapped from the Receiving Report and Receiving Report Line Item log tables to update the Material Use Transaction table (MATUSETRANS) in FEM. Receiving Report Line Item log records will be use to insert a receipt transaction for each line item being received.

|   |                           | From Tables |      |             | To Tables       |          |      |  |
|---|---------------------------|-------------|------|-------------|-----------------|----------|------|--|
| FEM Table   | FEM Column Name           | Format      | Size | FEM Table   | FEM Column Name | Format   | Size |  |
| <b>Insert Material Use Transactions if Direct Issue = 'Y'</b> |                           |             |      |             |                 |          |      |  |
| <i>Compute</i>  | RECEIVEDAMT / RECEIVEDQTY |             |      | MATUSETRANS | ACTUALCOST      | NUMBER   | 10,2 |  |
| RRLOG   | RECEIVEDDATE              | DATE        |      | MATUSETRANS | ACTUALDATE      | DATE     |      |  |
| POLINE  | CONVERSION                | NUMBER      | 15,2 | MATUSETRANS | CONVERSION      | NUMBER   | 15,2 |  |
|   | 0                         |             |      | MATUSETRANS | CURBAL          | NUMBER   | 15,2 |  |
|   | 'USD'                     |             |      | MATUSETRANS | CURRENCYCODE    | VARCAHR2 | 8    |  |
| POLINE  | DESCRIPTION               | VARCAHR2    | 100  | MATUSETRANS | DESCRIPTION     | VARCAHR2 | 100  |  |
|   | 'CEFMS'                   |             |      | MATUSETRANS | ENTERBY         | VARCAHR2 | 18   |  |
| POLINE  | EQNUM                     | VARCAHR2    | 15   | MATUSETRANS | EQNUM           | VARCAHR2 | 15   |  |
|   | 'ISSUE'                   | VARCAHR2    | 8    | MATUSETRANS | ISSUETYPE       | VARCAHR2 | 8    |  |
| POLINE  | ITEMNUM                   | VARCAHR2    | 15   | MATUSETRANS | ITEMNUM         | VARCAHR2 | 15   |  |
| RRLOG   | RRNUM                     | NUMBER      | 6,0  | MATUSETRANS | ITIN1 (RRNUM)   | NUMBER   | 6,0  |  |
| RRLOG   | RECEIVEDAMT               | NUMBER      | 14,2 | MATUSETRANS | LINECOST        | NUMBER   | 10,2 |  |
| POLINE  | LOCATION                  | VARCHAR2    | 15   | MATUSETRANS | LOCATION        | VARCHAR2 | 15   |  |
|   | System Generated          |             |      | MATUSETRANS | MATRECTRANSID   | INTEGER  |      |  |
| INVBALANCES   | PHYSCNT                   | NUMBER      | 15,2 | MATUSETRANS | PHYSCNT         | NUMBER   | 15,2 |  |
| POLINE  | POLINENUM                 | INTEGER     |      | MATUSETRANS | POLINENUM       | INTEGER  |      |  |
| POLINE  | PONUM                     | VARCHAR2    | 16   | MATUSETRANS | PONUM           | VARCHAR2 | 16   |  |
| RRLOG   | RECEIVEDQTY               | NUMBER      | 14,4 | MATUSETRANS | QUANTITY        | NUMBER   | 15,2 |  |
|   | 'N'                       |             |      | MATUSETRANS | SPAREPARTADDED  | YORN     |      |  |
|   | System Date               | DATE        |      | MATUSETRANS | TRANSDATE       | DATE     |      |  |
| <i>Compute</i>  | RECEIVEDAMT / RECEIVEDQTY |             |      | MATUSETRANS | UNITCOST        | NUMBER   | 16,3 |  |
| POLINE  | WONUM                     | VARCHAR2    | 10   | MATUSETRANS | WONUM           | VARCHAR2 | 10   |  |

#### 4.1.4.5 Update Inventory Balance

If the receipt is not a direct issue (POLINE.DIRECTISSUE = 'N') then the current balance needs to be updated for the Storeroom and Bin location. The received quantity must be added to the current balance (CURBAL) in the Inventory Balances table (INVBALANCES) where the Storeroom (STORELOC), the Item number (ITEMNUM), and the Bin Number (BINNUM) in the FEM PR&C Line Item Record (POLINE) is equal to the Storeroom (LOCATION), Item Number (ITEMNUM), and the Bin Number (BINNUM) in the Inventory Balance table (INVBALANCES).

#### 4.1.4.6 Update Inventory Costs.

If the receipt is not a direct issue (DIRECTISSUE = 'N') then the cost of the item needs to be updated for the Storeroom. There are two costs that need to be updated in the Inventory table (INVENTORY) the Last Cost (LASTCOST) and the Average Cost (AVGCOST). The two costs are computed as follows:

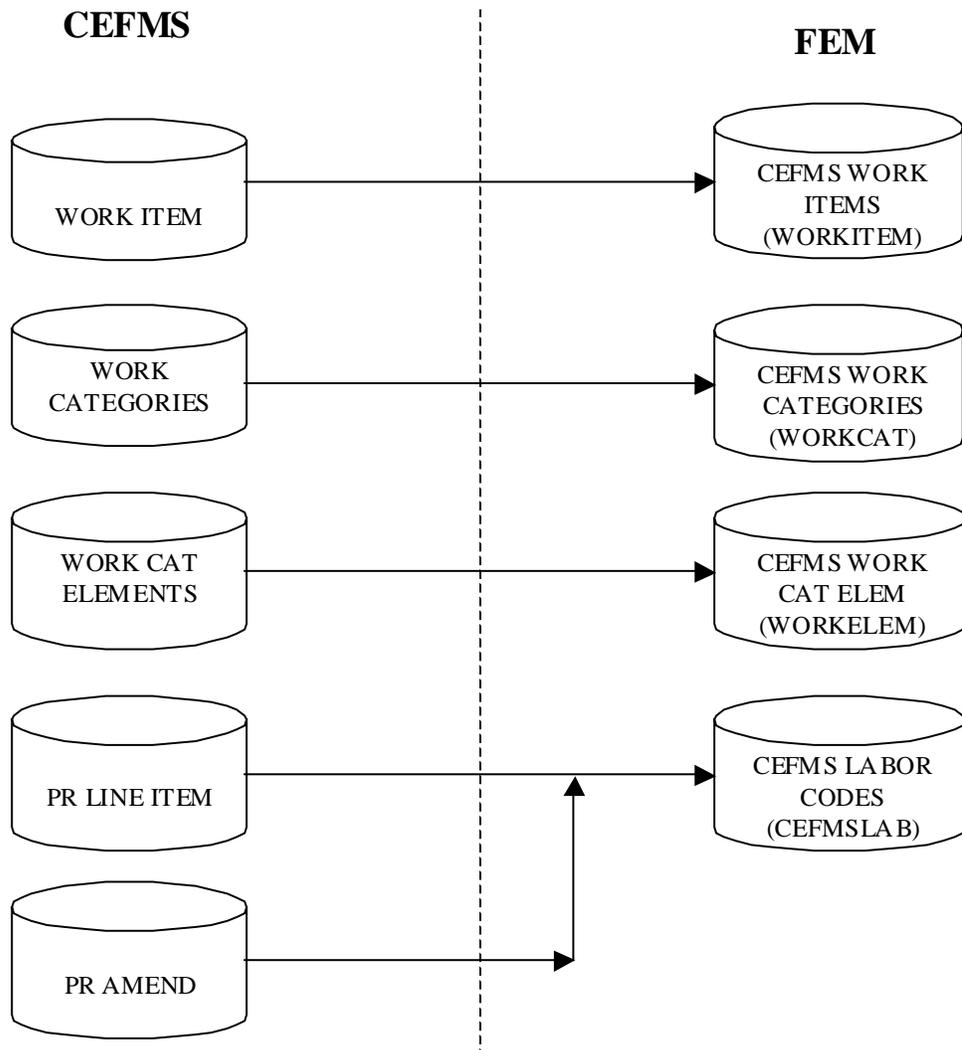
- Last Cost = (Received Amount / Received Quantity) / Conversion Factor
- Average Cost = ((Previous storeroom balance \* Previous Average Cost) + (Quantity Received \* Last Cost)) / New Balance

Where New Balance = Previous Storeroom Balance + Quantity Recieved

These values should be updated where the Storeroom (STORELOC) and the Item number (ITEMNUM) in the FEM PR&C Line Item Record (POLINE) is equal to the Storeroom (LOCATION) and Item Number (ITEMNUM) in the Inventory table (INVENTORY).

## 4.2 Charge Code Processing

FEM tracks charges for performing maintenance down to the individual equipment item. FEM tracks the cost of labor, repair parts, special tools, and services. To do this, FEM will use the CEFMS Work Items, Work Categories Codes, Work Category Elements, and Labor Codes. These CEFMS codes will be associated with all maintenance activities in FEM. In order to tie the CEFMS codes to work performed in FEM, FEM must access the CEFMS databases and obtain a valid list of codes. A database link will be established to periodically connect with the appropriate CEFMS databases and pull a copy of the CEFMS codes and place them in tables within FEM. The diagram below shows the basic process.



#### 4.2.1 Retrieving Work Item Data from CEFMS.

The table below describes how the Work Item Codes will be mapped from the CEFMS databases into the FEM database. The interface procedures will first delete from the FEM table those records that were created by interface; it will then re-insert only those records in the CEFMS WORK\_ITEM table that have a null value in the Actual End Date field (WI\_ACTUAL\_END\_DATE).

| CEFMS Table | CEFMS Column Name                           | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|-------------|---|----------|------|-----------|-----------------|----------|------|
|             | <i>System generated</i>                     |          |      | WORKITEM  | KEYNUM          | VARCHAR2 | 8    |
| WORK ITEM   | WI_CODE                                     | VARCHAR2 | 6    | WORKITEM  | WORKITEM        | VARCHAR2 | 6    |
| WORK ITEM   | WI_NAME                                     | VARCHAR2 | 60   | WORKITEM  | NAME            | VARCHAR2 | 60   |
| WORK ITEM   | WI_TYPE_CODE                                | VARCHAR2 | 1    | WORKITEM  | TYPE            | VARCHAR2 | 1    |
| WORK ITEM   | WI_DESC                                     | VARCHAR2 | 240  | WORKITEM  | DESCRIPTION     | VARCHAR2 | 240  |
|             | <i>Set based on database being accessed</i> |          |      | WORKITEM  | FOACODE         | VARCHR2  | 2    |
|             | System Date                                 |          |      | WORKITEM  | CHANGEDATE      | DATE     |      |
|             | 'CEFMS'                                     |          |      | WORKITEM  | CHANGEBY        | VARCHAR2 | 18   |
|             | System Generated                            |          |      | WORKITEM  | CONTROLKEY      | Varchar2 | 9    |

#### 4.2.2 Retrieving Work Category Code Data from CEFMS

The table below describes how the Work Category Codes will be mapped from the CEFMS databases into the FEM database. The Interface will first delete from the FEM table those records that were created previously by the interface. It will then re-insert those records from the CEFMS WORK\_CATEGORIES table having INACTIVE\_IND of 'N'.

| CEFMS Table     | CEFMS Column Name                           | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|-----------------|---|----------|------|-----------|-----------------|----------|------|
|                 | <i>System generated</i>                     |          |      | WORKCAT   | KEYNUM          | VARCHAR2 | 8    |
| WORK CATEGORIES | WORK_CAT_CODE                               | VARCHAR2 | 6    | WORKCAT   | CATEGORYCODE    | VARCHAR2 | 6    |
| WORK CATEGORIES | WORK_CAT_DESC                               | VARCHAR2 | 240  | WORKCAT   | DESCRIPTION     | VARCHAR2 | 240  |
| WORK CATEGORIES | INACTIVE_IND                                | VARCHAR2 | 1    | WORKCAT   | ACTIVE          | VARCHAR2 | 1    |
|                 | <i>Set based on database being accessed</i> |          |      | WORKCAT   | FOACODE         | VARCHR2  | 2    |
|                 | System Date                                 |          |      | WORKCAT   | CHANGEDATE      | DATE     |      |
|                 | 'CEFMS'                                     |          |      | WORKCAT   | CHANGEBY        | VARCHAR2 | 18   |
|                 | System Generated                            |          |      | WORKCAT   | CONTROLKEY      | Varchar2 | 9    |

### 4.2.3 Retrieving Work Category Element Data from CEFMS

The table below describes how the Work Category Elements will be mapped from the CEFMS databases into the FEM database. The Interface will first delete from the FEM table those records which were created previously by the interface. It will then re-insert those records from the CEFMS WORK\_CAT\_ELEMENTS table having INACTIVE\_IND of 'N' or 'I'.

| CEFMS Table       | CEFMS Column Name                           | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|-------------------|---|----------|------|-----------|-----------------|----------|------|
|                   | <i>System generated</i>                     |          |      | WORKELEM  | KEYNUM          | VARCHAR2 | 8    |
| WORK CAT ELEMENTS | WORK_CAT_ELEM_CAODE                         | VARCHAR2 | 6    | WORKELEM  | ELEMENTCODE     | VARCHAR2 | 6    |
| WORK CAT ELEMENTS | WORK_CAT_ELEM_DESC                          | VARCHAR2 | 100  | WORKELEM  | DESCRIPTION     | VARCHAR2 | 100  |
|                   | <i>Set based on database being accessed</i> |          |      | WORKELEM  | FOACODE         | VARCHR2  | 2    |
|                   | System Date                                 |          |      | WORKELEM  | CHANGEDATE      | DATE     |      |
|                   | 'CEFMS'                                     |          |      | WORKELEM  | CHANGEBY        | VARCHAR2 | 18   |
|                   | System generated                            |          |      | WORKELEM  | CONTROLKEY      | Varchar2 | 9    |

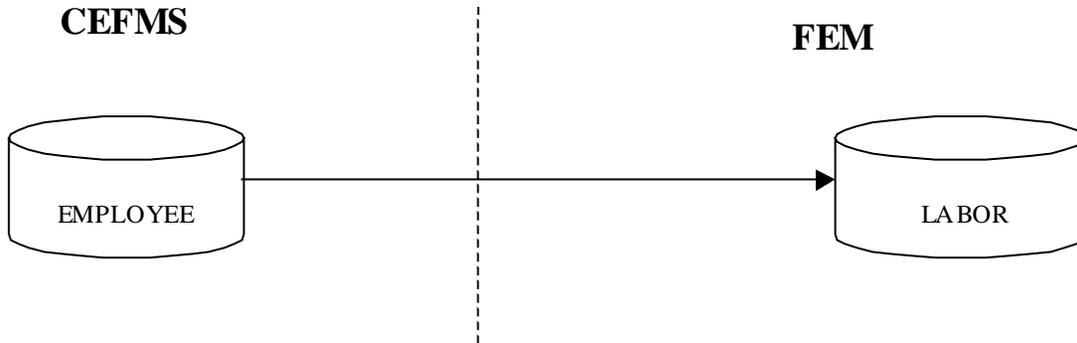
### 4.2.4 Retrieving Labor Code Data from CEFMS

The table below describes how the Labor Codes will be mapped from the CEFMS databases into the FEM database. The Interface will first delete from the FEM table those records which were created previously by the interface. It will then re-insert those records from the CEFMS PR\_LINE\_ITEM table having a RESOURCE\_CODE value of 'LABOR', where the TIMEKEEPER\_CODE does not begin with 'NA', and where either the CHARGE\_CODE begins with L and the UNOBLIG\_US\_BAL\_AMT is greater than 0, or the CHARGE\_CODE does NOT begin with 'L'.

| CEFMS Table  | CEFMS Column Name                                      | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|--------------|--|----------|------|-----------|-----------------|----------|------|
|              | <i>System generated</i>                                |          |      | CEFMSLAB  | KEYNUM          | VARCHAR2 | 8    |
| PR_LINE_ITEM | CHARGE_CODE  | VARCHAR2 | 6    | CEFMSLAB  | LABORCODE       | VARCHAR2 | 6    |
| PR_LINE_ITEM | ITEM_DESC  | VARCHAR2 | 2000 | CEFMSLAB  | DESCRIPTION     | VARCHAR2 | 254  |
|              | <i>Interface Generated based on FOA being accessed</i> | VARCHAR2 | 9    | CEFMSLAB  | FOACODE         | VARCHR2  | 2    |
|              | System Date  |          |      | CEFMSLAB  | CHANGEDATE      | DATE     |      |
|              | 'CEFMS'  |          |      | CEFMSLAB  | CHANGEBY        | VARCHAR2 | 18   |
|              | System Generated                                       |          |      | CEFMSLAB  | CONTROLKEY      | VARCHAR2 | 9    |

### 4.3 Retrieving Employee Labor Rates From CEFMS

FEM tracks labor hours for performing maintenance down to the individual equipment item. FEM also tracks the cost of labor. FEM must also ensure these costs are as accurate as possible. To do this, FEM will use the Employee hourly labor rates from CEFMS. These rates will be pulled from CEFMS once each pay period. The rate to be applied will be based on the labor type being entered when the hours are recorded on a work order. The diagram below shows the database tables involved.

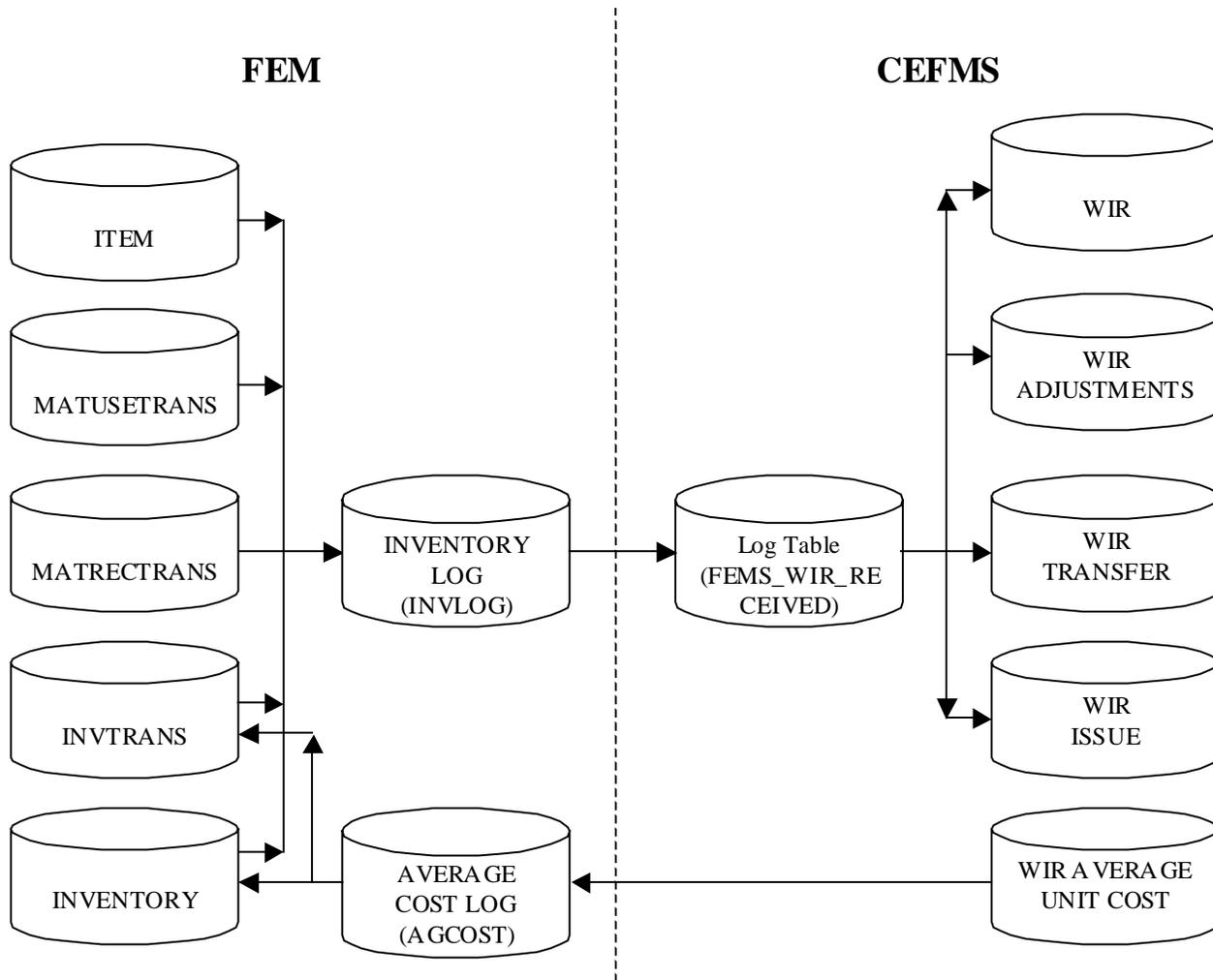


The Employee Hourly Rates is obtained from the Employee table by Employee ID Number. FEM will update the FEM Labor table with the latest rates for the Employee.

| CEFMS Table                   | CEFMS Column Name             | Format   | Size | FEM Table | FEM Column Name  | Format   | Size |
|-------------------------------|-------------------------------|----------|------|-----------|------------------|----------|------|
| <b>Get Employee Rate Data</b> |                               |          |      |           |                  |          |      |
| EMPLOYEE                      | EMP_ID_NO                     | VARCHAR2 | 9    | LABOR     | LABRCODE         | VARCHAR2 | 9    |
| EMPLOYEE                      | ORG_CODE                      | VARCHAR2 | 7    | LABOR     | LA8 (ORGCODE)    | VARCHAR2 | 7    |
| EMPLOYEE                      | REG_HRLY_RATE                 | NUMBER   | 4,2  | LABOR     | PAYRATE          | NUMBER   | 10,2 |
| EMPLOYEE                      | OVT_HRLY_RATE / REG_HRLY_RATE | NUMBER   | 4,2  | LABOR     | OTSCALE          | NUMBER   | 8,2  |
| EMPLOYEE                      | SECOND_SHIFT_RATE             | NUMBER   | 4,2  | LABOR     | LA6 (SHIFTRATE2) | NUMBER   | 5,2  |
| EMPLOYEE                      | THIRD_SHIFT_RATE              | NUMBER   | 4,2  | LABOR     | LA7 (SHIFTRATE3) | NUMBER   | 5,2  |

#### 4.4 Inventory/Warehouse Processing

FEM will define storerooms as either Civil or Revolving Fund. Since FEM and CEFMS both have inventory functions, an interface between the two systems is required to track inventory changes in the revolving fund warehouse (i.e., issues, returns, balance adjustments, cost adjustments, etc.). The diagram below shows the process.



CEFMS will send Average Cost Adjustment transactions to FEM. FEM will update the Average Cost in the Inventory table and create an Inventory Transaction record to document the action.

FEM will consolidate all transactions that need to be sent to CEFMS in an Inventory log table (INVLOG). A transaction type field will be included with each transaction to denote what kind of transaction is being passed. A database link will be established to periodically connect with the appropriate CEFMS databases to pass information from the Inventory log table to a CEFMS log table (FEMS\_WIR\_RECEIVED). CEFMS will process the records and update the appropriate CEFMS inventory tables.

Once a transaction is successfully sent to CEFMS the status of that transaction will be changed to 'CEFMS' in the Inventory Log table. If there is a problem with the transaction the status will be changed to 'ERROR' and an error message will be stored in the Error Message column. Records marked 'CEFMS' will be retained in the Inventory Log table until the retention period is reached. The retention period will be defined in a FEM system variable used the FEM Variables application. The following table show how the data will be mapped from the FEM Inventory log table to the CEFMS inventory Log table.

| FEM Table | SENDING SYSTEM            |          |      | RECEIVING SYSTEM  |                   |          |      |
|-----------|---------------------------|----------|------|-------------------|-------------------|----------|------|
|           | FEM Column Name           | Format   | Size | CEFMS Table       | CEFMS Column Name | Format   | Size |
| INVLOG    | RESOURCECODE              | VARCHAR2 | 10   | FEMS_WIR_RECEIVED | RESOURCE_CODE     | VARCHAR2 | 10   |
| INVLOG    | FROMSTORLOC or TOSTORELOC | VARCHAR2 | 6    | FEMS_WIR_RECEIVED | WIR_WI_CODE       | VARCHAR2 | 6    |
| INVLOG    | TRANSTYPE                 | VARCHAR2 | 10   | FEMS_WIR_RECEIVED | TRANS_TYPE        | VARCHAR2 | 10   |
|           | <i>Updated by CEFMS</i>   |          |      | FEMS_WIR_RECEIVED | RECEIVED_DATE     | DATE     |      |
| INVLOG    | PRACNUM                   | VARCHR2  | 16   | FEMS_WIR_RECEIVED | PRAC_NO           | VARCHR2  | 16   |
| INVLOG    | PRACLINENUM               | NUMBER   | 4    | FEMS_WIR_RECEIVED | PRAC_LINE_NO      | NUMBER   | 4    |
| INVLOG    | QUANTITY                  | NUMBER   | 14,2 | FEMS_WIR_RECEIVED | QTY               | NUMBER   | 14,2 |
| INVLOG    | REMARKS                   | VARCHAR2 | 50   | FEMS_WIR_RECEIVED | REMARKS_TXT       | VARCHAR2 | 2000 |

The different TRANS\_TYPE's CEFMS expects are:

| CEFMS Type | Description                                       | FEM Type               |
|------------|---|------------------------|
| ISSUE      | Inventory issues                                  | ISSUE                  |
| RETURN     | Inventory returns                                 | RETURN                 |
| TRSFOUT    | Transferring an inventory item out of a warehouse | TRASNFER               |
| TRSFIN     | Transferring an inventory item into a warehouse   | TRANSFER               |
| ADJ        | Physical count adjustments                        | CURBALADJ<br>RECBALADT |
| UOMCHG     | Change to issue unit of measure                   | N/A                    |
| TURNIN     | Inventory item is salvaged                        | N/A                    |

FEM will convert the FEM TRANSFER type transaction into two transaction for CEFMS (TRSFOUT and TRSFIN) using the To and From Storeroom Locations in the FEM Inventory log.

For Physical Count Adjustments FEM will send Current Balance Adjustments and Reconcile Balance Adjustments. FEM's Physical Count Adjustment transaction will not be sent.

#### 4.4.1 Issuing Material

An in-house PR&C must exist before an item can be issued from a Revolving Fund storeroom. When an item is issued from a storeroom, FEM builds a Material Use Transaction (MATUSETRANS) record

(ISSUETYPE = 'ISSUE'). The FEM MATUSTRANS trigger will build a record in the INVLOG table for each record being issued from a REVOLVING type storeroom, as follows:

| From Tables                      |                         |          |      | To Tables |                 |          |      |
|----------------------------------|-------------------------|----------|------|-----------|-----------------|----------|------|
| FEM Table                        | FEM Column Name         | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
| <b>Create Issue Transactions</b> |                         |          |      |           |                 |          |      |
|                                  | <i>System Generated</i> |          |      | INVLOG    | TRANSID         | VARCHAR2 | 8    |
| MATUSETRANS                      | ISSUETYPE               | VARCHAR2 | 8    | INVLOG    | TRANSTYPE       | VARCHAR2 | 8    |
| MATUSETRANS                      | ITIN1<br>(RESOURCECODE) | VARCHAR2 | 10   | INVLOG    | RESOURCECODE    | VARCHAR2 | 10   |
| MATUSETRANS                      | ITEMNUM                 | VARCHAR2 | 15   | INVLOG    | ITEMNUM         | VARCHAR2 | 15   |
| MATUSETRANS                      | LOCATION                | VARCHAR2 | 15   | INVLOG    | FROMSTOREROOM   | VARCHAR2 | 15   |
| MATUSETRANS                      | PONUM                   | VARCHAR2 | 16   | INVLOG    | PRACNUM         | VARCHAR2 | 16   |
| MATUSETRANS                      | POLINENUM               | INTEGER  |      | INVLOG    | PRACLINENUM     | INTEGER  |      |
| MATUSETRANS                      | QUANTITY                | NUMBER   | 15,2 | INVLOG    | QUANTITY        | NUMBER   | 15,2 |
| MATUSETRANS                      | MEMO                    | VARCHAR2 | 50   | INVLOG    | REMARKS         | VARCHAR2 | 50   |
| MATUSETRANS                      | TRANSDATE               | DATE     |      | INVLOG    | TRANSDATE       | DATE     |      |
| MATUSETRANS                      | MATUSETRANSID           | INTEGER  |      | INVLOG    | MATUSETRANSID   | INTEGER  |      |

#### 4.4.2 Returning Material

An in-house PR&C must exist before an item can be returned to a Revolving Fund storeroom. When an item is returned to a storeroom, FEM builds a Material Use Transaction (MATUSETRANS) record (ISSUETYPE = 'RETURN'). The FEM MATUSTRANS trigger will build a record in the INVLOG table for each record being issued from a REVOLVING type storeroom, as follows:

| FEM Table                         | FEM Column Name         | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|-----------------------------------|-------------------------|----------|------|-----------|-----------------|----------|------|
| <b>Create Return Transactions</b> |                         |          |      |           |                 |          |      |
|                                   | <i>System Generated</i> |          |      | INVLOG    | TRANSID         | VARCHAR2 | 8    |
| MATUSETRANS                       | ISSUETYPE               | VARCHAR2 | 8    | INVLOG    | TRANSTYPE       | VARCHAR2 | 8    |
| MATUSETRANS                       | ITIN1<br>(RESOURCECODE) | VARCHAR2 | 10   | INVLOG    | RESOURCECODE    | VARCHAR2 | 10   |
| MATUSETRANS                       | ITEMNUM                 | VARCHAR2 | 15   | INVLOG    | ITEMNUM         | VARCHAR2 | 15   |
| MATUSETRANS                       | LOCATION                | VARCHAR2 | 15   | INVLOG    | TOSTOREROOM     | VARCHAR2 | 15   |
| MATUSETRANS                       | PONUM                   | VARCHAR2 | 16   | INVLOG    | PRACNUM         | VARCHAR2 | 16   |
| MATUSETRANS                       | POLINENUM               | INTEGER  |      | INVLOG    | PRACLINENUM     | INTEGER  |      |
| MATUSETRANS                       | QUANTITY                | NUMBER   | 15,2 | INVLOG    | QUANTITY        | NUMBER   | 15,2 |
| MATUSETRANS                       | MEMO                    | VARCHAR2 | 50   | INVLOG    | REMARKS         | VARCHAR2 | 50   |
| MATUSETRANS                       | TRANSDATE               | DATE     |      | INVLOG    | TRANSDATE       | DATE     |      |
| MATUSETRANS                       | MATUSETRANSID           | INTEGER  |      | INVLOG    | MATUSETRANSID   | INTEGER  |      |

### 4.4.3 Transferring Material

When an item is transferred from one storeroom to another, FEM builds a Material Receipt Transaction (MATRECTRANS) record (ISSUETYPE = 'TRANSFER'). The FEM MATRECTRANS trigger will build a record in the INVLOG table for each record being transferred from a REVOLVING type storeroom, as follows:

| FEM Table                           | FEM Column Name         | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|-------------------------------------|-------------------------|----------|------|-----------|-----------------|----------|------|
| <b>Create Transfer Transactions</b> |                         |          |      |           |                 |          |      |
|                                     | <i>System Generated</i> |          |      | INVLOG    | TRANSID         | VARCHAR2 | 8    |
| MATRECTRANS                         | ISSUETYPE               | VARCHAR2 | 8    | INVLOG    | TRANSTYPE       | VARCHAR2 | 8    |
| MATRECTRANS                         | ITIN1<br>(RESOURCECODE) | VARCHAR2 | 10   | INVLOG    | RESOURCECODE    | VARCHAR2 | 10   |
| MATRECTRANS                         | ITEMNUM                 | VARCHAR2 | 15   | INVLOG    | ITEMNUM         | VARCHAR2 | 15   |
| MATRECTRANS                         | FROMSTORELOC            | VARCHAR2 | 15   | INVLOG    | FROMSTOREROOM   | VARCHAR2 | 15   |
| MATRECTRANS                         | TOSTORELOC              | VARCHAR2 | 15   | INVLOG    | TOSTOREROOM     | VARCHAR2 | 15   |
| MATRECTRANS                         | QUANTITY                | NUMBER   | 15,2 | INVLOG    | QUANTITY        | NUMBER   | 15,2 |
| MATRECTRANS                         | REMARKS                 | VARCHAR2 | 50   | INVLOG    | REMARKS         | VARCHAR2 | 50   |
| MATRECTRANS                         | TRANSDATE               | DATE     |      | INVLOG    | TRANSDATE       | DATE     |      |
| MATRECTRANS                         | MATRECTRANSID           | INTEGER  |      | INVLOG    | MATRECTRANSID   | INTEGER  |      |

### 4.4.4 Inventory Adjustments

When an item an adjustment is made to an inventory item in a storeroom, FEM builds an Inventory Transaction (INVTRANS) record. The type of adjustments that FEM tracks are Cost Adjustments (Average, Standard, and Last), Current Balance Adjustments, Physical Count Adjustments, Balance Reconciliation, and Receipt Adjustments. However, FEM must only notify CEFMS when adjustments affect the Current Balance. Therefore, FEM will create records in the INVLOG table whenever a Balance Reconciliation or Current Balance Adjustment is made to the INVENTORY table. The CEFMS Receiving Report process will handle receipt adjustments. The following table shows how the data will be mapped:

| FEM Table                             | FEM Column Name         | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|---------------------------------------|-------------------------|----------|------|-----------|-----------------|----------|------|
| <b>Create Adjustment Transactions</b> |                         |          |      |           |                 |          |      |
|                                       | <i>System Generated</i> |          |      | INVLOG    | TRANSID         | VARCHAR2 | 8    |
| INVTRANS                              | TRANSTYPE               | VARCHAR2 | 16   | INVLOG    | TRANSTYPE       | VARCHAR2 | 16   |
| ITEM                                  | IN19<br>(RESOURCECODE)  | VARCHAR2 | 10   | INVLOG    | RESOURCECODE    | VARCHAR2 | 10   |
| INVTRANS                              | ITEMNUM                 | VARCHAR2 | 15   | INVLOG    | ITEMNUM         | VARCHAR2 | 15   |
| INVTRANS                              | STORELOC                | VARCHAR2 | 15   | INVLOG    | FROMSTOREROOM   | VARCHAR2 | 15   |
| INVTRANS                              | MEMO                    | VARCHAR  | 50   | INVLOG    | REMARKS         | VARCHAR  | 50   |
| INVTRANS                              | QUANTITY                | NUMBER   | 15,2 | INVLOG    | QUANTITY        | NUMBER   | 15,2 |
| INVTRANS                              | TRANSDATE               | DATE     |      | INVLOG    | TRANSDATE       | DATE     |      |
| INVTRANS                              | INVTRANSID              | INTEGER  |      | INVLOG    | INVTRANSID      | INTEGER  |      |

### 4.4.5 Unit of Issue Changes

When the FEM Unit of Issue is changed, FEM must send the new Unit of Issue to CEFMS and recalculate the Current Balance and the Average Cost. The new balance will be sent to CEFMS as one of

the standard Adjustment transactions described above. FEM will create a new Inventory Adjustment transaction to trap changes to the Unit of Issue. The following table shows how the data will be mapped:

| FEM Table                         | FEM Column Name         | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|-----------------------------------|-------------------------|----------|------|-----------|-----------------|----------|------|
| <b>Create Return Transactions</b> |                         |          |      |           |                 |          |      |
|                                   | <i>System Generated</i> |          |      | INVLOG    | TRANSID         | VARCHAR2 | 8    |
|                                   | 'UOMCHG'                | VARCHAR2 | 16   | INVLOG    | TRANSTYPE       | VARCHAR2 | 16   |
| ITEM                              | IN19 (RESOURCECODE)     | VARCHAR2 | 10   | INVLOG    | RESOURCECODE    | VARCHAR2 | 10   |
| INVENTORY                         | ITEMNUM                 | VARCHAR2 | 15   | INVLOG    | ITEMNUM         | VARCHAR2 | 15   |
| INVENTORY                         | LOCATION                | VARCHAR2 | 15   | INVLOG    | FROMSTOREROOM   | VARCHAR2 | 15   |
| INVENTORY                         | ISSUEUNIT               | VARCHAR2 | 8    | INVLOG    | ISSUEUNIT       | VARCHAR2 | 8    |
|                                   | <i>System Date</i>      | DATE     |      | INVLOG    | TRANSDATE       | DATE     |      |
|                                   | <i>System Generated</i> | INTEGER  |      | INVLOG    | INVTRANSID      | INTEGER  |      |

#### 4.4.6 Disposing of Material

**THIS SECTION IS ON HOLD PENDING PROCESS DEFINITION AND INTERACTION WITH INVENTORY TURNIN APPLICATION.**

When FEM disposes of an inventory Item using the Item Turn-in application, FEM must create an Inventory Adjustment transaction (TRANSTYPE = 'TURNIN') and notify CEFMS. The following table shows how the data will be mapped:

| FEM Table                          | FEM Column Name         | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|------------------------------------|-------------------------|----------|------|-----------|-----------------|----------|------|
| <b>Create Turn In Transactions</b> |                         |          |      |           |                 |          |      |
|                                    | <i>System Generated</i> |          |      | INVLOG    | TRANSID         | VARCHAR2 | 8    |
| INVTRANS                           | TRANSTYPE               | VARCHAR2 | 16   | INVLOG    | TRANSTYPE       | VARCHAR2 | 16   |
| ITEM                               | IT19 (RESOURCECODE)     | VARCHAR2 | 10   | INVLOG    | RESOURCECODE    | VARCHAR2 | 10   |
| INVTRANS                           | ITEMNUM                 | VARCHAR2 | 15   | INVLOG    | ITEMNUM         | VARCHAR2 | 15   |
| INVTRANS                           | STORELOC                | VARCHAR2 | 15   | INVLOG    | FROMSTOREROOM   | VARCHAR2 | 15   |
| INVTRANS                           | QUANTITY                | NUMBER   | 15,2 | INVLOG    | QUANTITY        | NUMBER   | 15,2 |
| INVTRANS                           | INV1 (DISPOSITIONCODE)  | VARCHAR2 | 2    | INVLOG    | DISPOSITIONCODE | VARCHAR2 | 2    |
| INVTRANS                           | MEMO                    | VARCHAR2 | 50   | INVLOG    | REMARKS         | VARCHAR2 | 50   |
| INVTRANS                           | TRANSDATE               | DATE     |      | INVLOG    | TRANSDATE       | DATE     |      |
| INVTRANS                           | INVTRANSID              | INTEGER  |      | INVLOG    | INVTRANSID      | INTEGER  |      |

#### 4.4.7 Average Unit Cost Changes

CEFMS recalculates the Average Unit Cost to keep the inventory value in synch with the General Ledger accounts. Each time CEFMS recalculates the Average Unit Cost CEFMS will send a transaction to FEM. The following table shows how the data will be mapped:

| CEFMS Table                                 | CEEMS Column Name       | Format | Size | FEM Table | FEM Column Name | Format   | Size |
|---|-------------------------|--------|------|-----------|-----------------|----------|------|
| <b>Receive Cost Adjustment Transactions</b> |                         |        |      |           |                 |          |      |
|   | <i>System Generated</i> |        |      | AVGCOST   | TRANSID         | VARCHAR2 | 8    |

| CEFMS Table           | CEEMS Column Name                                | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|-----------------------|--|----------|------|-----------|-----------------|----------|------|
| WIR AVERAGE UNIT COST | RECOURSE_CODE                                    | VARCHAR2 | 10   | AVGCOST   | RESOURCECODE    | VARCHAR2 | 10   |
| WIR AVERAGE UNIT COST | WIR_WI_CODE                                      | VARCHAR2 | 6    | AVGCOST   | STOREROOM       | VARCHAR2 | 15   |
| WIR AVERAGE UNIT COST | AVG_UNIT_COST                                    | NUMBER   | 16,3 | AVGCOST   | AVGUNITCOST     | NUMBER   | 16,3 |
| WIR AVERAGE UNIT COST | EFFECTIVE_DATE                                   | DATE     |      | AVGCOST   | EFFECTIVEDATE   | DATE     |      |
|                       | <i>Based on database sending the transaction</i> |          |      | AVGCOST   | FOA             | VARCHAR2 | 2    |
|                       |  |          |      | AVGCOST   | REMARKS         | VARCHAR2 | 50   |
|                       | <i>System Date</i>                               |          |      | AVGCOST   | TRANSDATE       | DATE     |      |

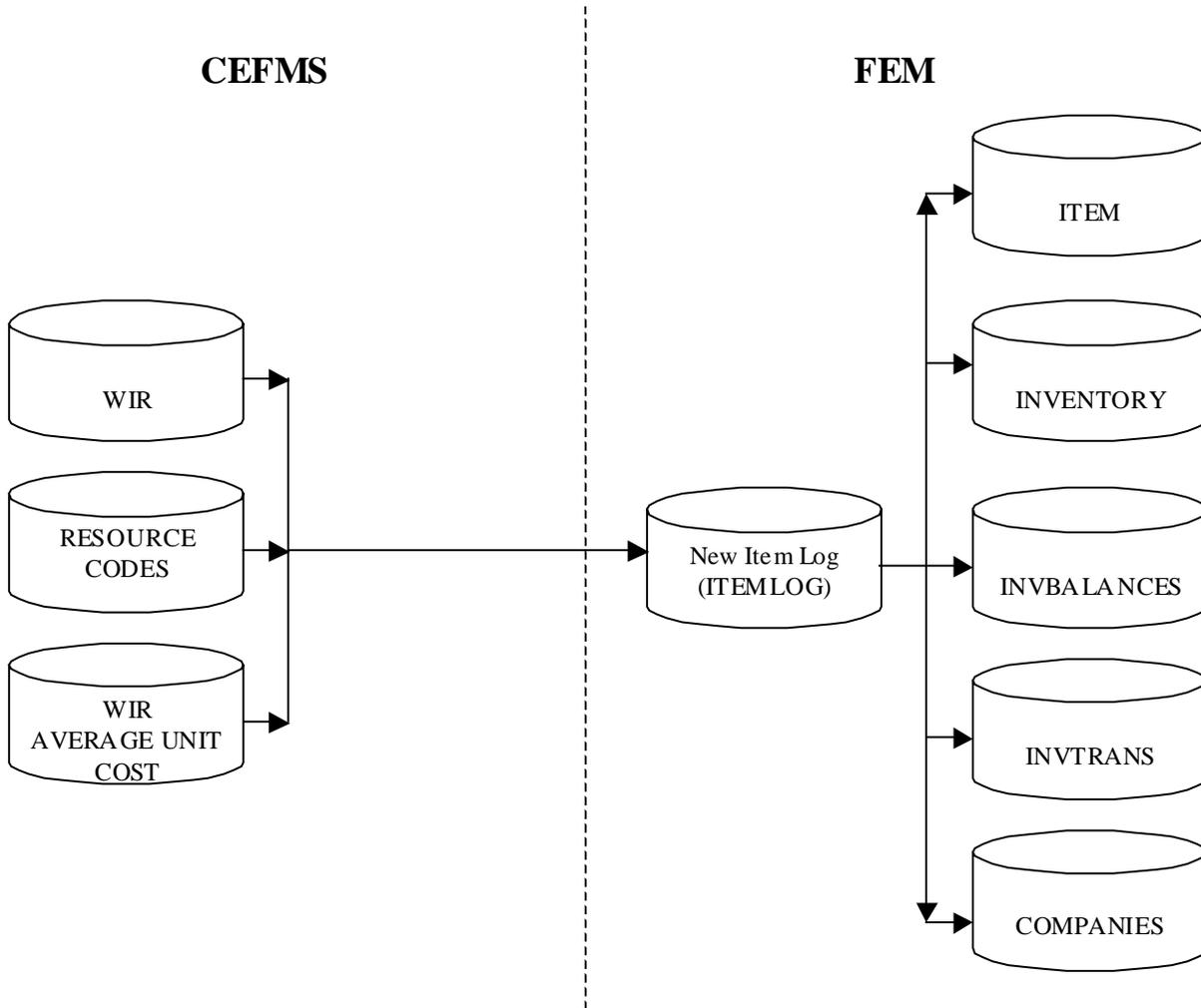
FEM will update the Average Cost in the Inventory table and create an Inventory Transaction record to document the action. When a record is processed in the Cost Log table it's status will be changed to 'PROCESSED' and the status date will be set to the system date. Records marked 'PROCESSED' will be retained in the Cost Log table until the retention period is reached. The retention period will be defined in a FEM system variable used the FEM Variables application.

FEM will use the Storeroom and Resource Code in the Cost Log table to determine the Item Number and which inventory record to update.

| FEM Table                                  | FEM Column Name                                   | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|--|---|----------|------|-----------|-----------------|----------|------|
| <b>Create Inventory Transaction Record</b> |   |          |      |           |                 |          |      |
| AVGCOST                                    | STOREROOM   | VARCHAR2 | 15   | INVTRANS  | STORELOC        | VARCHAR2 | 15   |
| AVGCOST                                    | AVGUNITCOST                                       | NUMBER   | 16,3 | INVTRANS  | NEWCOST         | NUMBER   | 16,3 |
| INVENTORY                                  | AVGCOST   | NUMBER   | 16,3 | INVTRANS  | OLDCOST         | NUMBER   | 16,3 |
| AVGCOST                                    | EFFECTIVEDATE                                     | DATE     |      | INVTRANS  | TRANSDATE       | DATE     |      |
| INVENTORY                                  | ITEMNUM   | VARCHAR2 | 8    | INVTRANS  | ITEMNUM         | VARCHAR2 | 8    |
|  | 'AVGCSTADJ'                                       |          |      | INVTRANS  | TRANSTYPE       | VARCHAR2 | 16   |
|  | 'CEFMS INTERFACE TRANSACTION'                     |          |      | INVTRANS  | MEMO            | VARCHAR2 | 50   |
|  | 0   |          |      | INVTRANS  | CONVERSION      | NUMBER   | 15,2 |
|  | <i>Total balance in all bins within Storeroom</i> |          |      | INVTRANS  | CURBAL          | NUMBER   | 15,2 |
|  | 'CEFMS'   |          |      | INVTRANS  | ENTERBY         | VARCHAR2 | 18   |
|  | CURBAL * (OLDCOST-NEWCOST)                        |          |      | INVTRANS  | LINECOST        | NUMBER   | 15,2 |
|  | 0   |          |      | INVTRANS  | PHYSCNT         | Number   | 15,2 |
|  | <i>System Assigned</i>                            |          |      | INVTRANS  | INVTRANSID      | INTEGER  |      |

#### 4.4.8 Adding New Item Received from CEFMS.

When new items are added to a CEFMS warehouse by CEFMS, such as when a new item is fabricated, CEFMS will pass information about the new item to the appropriate FEM database New Item Log table through a database link so it can be added to the FEM inventory.



FEM will process the log periodically to update the FEM database. If the item is new a new record must be created in FEM. If the item already exists in FEM, then the Current Balance needs to be updated. An Item Record will be created if the Item does not currently exist in FEM. An Inventor record will be created for the specified storeroom. An insert transaction (TRANSTYPE = 'INSERTITEM') will be added to the Inventory Transaction table (INVTRANS).

The following table shows how the data will be mapped:

| CEFMS Table                     | CEFMS Column Name                                | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|---------------------------------|--|----------|------|-----------|-----------------|----------|------|
| <b>Get Fabricated Item Data</b> |  |          |      |           |                 |          |      |
|                                 | <i>System Generated</i>                          |          |      | ITEMLOG   | TRANSID         | VARCHAR2 | 8    |
| WIR                             | RESOURCE_CODE                                    | VARCHR2  | 10   | ITEMLOG   | RESOURCECODE    | VARCHAR2 | 10   |
| RESORCE_CODES                   | RESOURCE_NAME                                    | VARCHAR2 | 90   | ITEMLOG   | DESCRIPTION     | VARCHAR2 | 100  |
| WIR                             | WIR_WI_CODE                                      | VARCHAR2 | 6    | ITEMLOG   | STOREROOM       | VARCHAR2 | 15   |
| ?                               | <i>Quantity Being Added</i>                      | NUMBER   | 14,4 | ITEMLOG   | QUANTITY        | NUMBER   | 15,2 |
| WIR                             | UOM_CODE   | VARCHAR2 | 2    | ITEMLOG   | ISSUEUNIT       | VARCHAR2 | 8    |
| WIR                             | REPLENISHMENT_UOM_CODE                           | VARCHAR2 | 2    | ITEMLOG   | ORDERUNIT       | VARCHAR2 | 8    |
| WIR                             | UOM_CONVERSION_FACTOR                            | NUMBER   | 6,0  | ITEMLOG   | CONVERSION      | NUMBER   | 15,2 |
| WIR                             | CAGE_CODE  | VARCHAR2 | 5    | ITEMLOG   | VENDOR          | VARCHAR2 | 8    |
| WIR                             | PART_NUMBER                                      | VARCHAR2 | 31   | ITEMLOG   | PARTNUM         | VARCHAR2 | 31   |
| WIR_AVERAGE_UNIT_COST           | AVG_UNIT_COST                                    | NUMBER   | 16,3 | ITEMLOG   | AVGCOST         | NUMBER   | 16,3 |
|                                 | <i>Based on database sending the transaction</i> | VARCHAR2 | 2    | ITEMLOG   | FOA             | VARCHAR2 | 2    |
|                                 | <i>System Date</i>                               |          |      | ITEMLOG   | TRANSDATE       | DATE     |      |

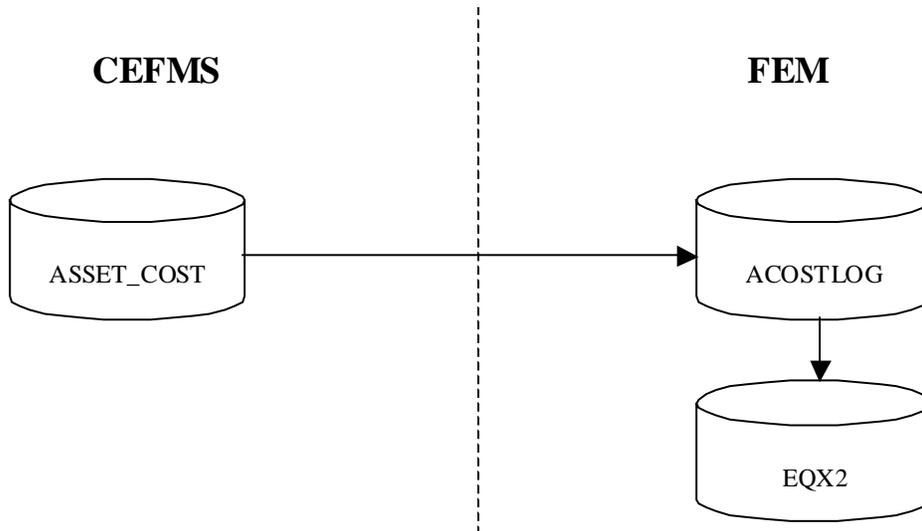
FEM will create an Item, Inventory, and Inventory Transaction record for the new item. If the Item already exists in another Storeroom FEM will not create an Item record.

| FEM Table                      | FEM Column Name     | Format   | Size | FEM Table | FEM Column Name    | Format   | Size |
|--------------------------------|---------------------|----------|------|-----------|--------------------|----------|------|
| <b>Create Item Record</b>      |                     |          |      |           |                    |          |      |
|                                | 'Y'                 |          |      | ITEM      | CAPITALIZED        | YORN     |      |
| ITEMLOG                        | DESCRIPTION         | VARCHAR2 | 90   | ITEM      | DESCRIPTION        | VARCHAR2 | 90   |
|                                | 'N'                 |          |      | ITEM      | INSPECTIONREQUIRED | YORN     |      |
| ITEMLOG                        | FOA    RESOURCECODE |          |      | ITEM      | ITEMNUMBER         | VARCHAR2 | 12   |
|                                | 'NOLOT'             |          |      | ITEM      | LOTTYPE            | VARCHAR2 | 5    |
|                                | 'N'                 |          |      | ITEM      | OUTSIDE            | YORN     |      |
|                                | 'N'                 |          |      | ITEM      | ROTATING           | YORN     |      |
|                                | 'Y'                 |          |      | ITEM      | SPAREPORTAUT OADD  | YORN     |      |
| <b>Create Inventory Record</b> |                     |          |      |           |                    |          |      |
| ITEMLOG                        | AVGCOST             |          |      | INVENTORY | AVGCOST            | NUMBER   | 16,3 |
|                                | 'STK'               |          |      | INVENTORY | CATEGORY           | VARCHAR2 | 4    |
|                                | 0                   |          |      | INVENTORY | CCF                | INTEGER  |      |
| ITEMLOG                        | CONVERSION          | NUMBER   | 15,2 | INVENTORY | CONVERSION         | NUMBER   | 15,2 |
|                                | 0                   |          |      | INVENTORY | DELIVERYTIME       | INTEGER  |      |
|                                | 0                   |          |      | INVENTORY | ISSUE1YRAGO        | NUMBER   | 15,2 |
|                                | 0                   |          |      | INVENTORY | ISSUE2YRAGO        | NUMBER   | 15,2 |
|                                | 0                   |          |      | INVENTORY | ISSUE3YRAGO        | NUMBER   | 15,2 |
| ITEMLOG                        | ISSUEUNIT           | VARCHAR2 | 8    | INVENTORY | ISSUEUNIT          | VARCHAR2 | 8    |
|                                | 0                   |          |      | INVENTORY | ISSUEYTD           | NUMBER   | 15,2 |

| FEM Table                                  | FEM Column Name                        | Format   | Size | FEM Table   | FEM Column Name    | Format   | Size |
|--|--|----------|------|-------------|--------------------|----------|------|
| ITEMLOG                                    | FOA    RESOURCECODE                    |          |      | INVENTORY   | ITEMNUM            | VARCHAR2 | 12   |
| ITEMLOG                                    | RESOURCECODE                           | VARCHAR2 |      | INVENTORY   | IL2 (RESOURCECODE) | VARCHAR2 | 10   |
| ITEMLOG                                    | AVGCOST                                | NUMBER   | 16,3 | INVENTORY   | LASTCOST           | NUMBER   | 16,3 |
| ITEMLOG                                    | STOREROOM                              | VARCHAR2 | 15   | INVENTORY   | LOCATION           | VARCHAR2 | 15   |
|  | 0                                      |          |      | INVENTORY   | MAXLEVEL           | NUMBER   | 15,2 |
|  | 0                                      |          |      | INVENTORY   | MINLEVEL           | NUMBER   | 15,2 |
|  | 0                                      |          |      | INVENTORY   | ORDERQTY           | NUMBER   | 15,2 |
| ITEMLOG                                    | ORDERUNIT                              | CARCHAR2 | 8    | INVENTORY   | ORDERUNIT          | VARCHAR2 | 8    |
| ITEMLOG                                    | AVGCOST                                | NUMBER   | 16,3 | INVENTORY   | STDCOST            | NUMBER   | 16,3 |
| ITEMLOG                                    | VENDOR                                 | VARCHAR2 | 8    | INVENTORY   | VENDOR             | VARCHAR2 | 8    |
| <b>Create Inventory Balance Record</b>     |  |          |      |             |                    |          |      |
| ITEMLOG                                    | QUANTITY                               | NUMBER   | 15,2 | INVBALANCES | CURBAL             | NUMBER   | 15,2 |
| ITEMLOG                                    | FOE    RESOURCECODE                    |          |      | INVBALANCES | ITEMNUM            | VARCHAR2 | 12   |
| ITEMLOG                                    | STOREROOM                              | VARCHAR2 | 15   | INVBALANCES | LOCATION           | VARCHAR2 | 15   |
| ITEMLOG                                    | QUANTITY                               | NUMBER   | 15,2 | INVBALANCES | PHYSCNT            | NUMBER   | 15,2 |
|  | 'Y'                                    |          |      | INVBALANCES | RECONCILED         | YORN     |      |
| ITEMLOG                                    | RESOURCECODE                           | VARCHAR2 | 10   | INVBALANCES | IL2 (RESOURCECODE) | VARCHAR2 | 10   |
| <b>Create Inventory Transaction Record</b> |  |          |      |             |                    |          |      |
| ITEMLOG                                    | STOREROOM                              | VARCHAR2 | 15   | INVTRANS    | STORELOC           | VARCHAR2 | 15   |
| ITEMLOG                                    | AVGCOST                                | NUMBER   | 16,3 | INVTRANS    | NEWCOST            | NUMBER   | 16,3 |
| ITEMLOG                                    | AVGCOST                                | NUMBER   | 16,3 | INVTRANS    | OLDCOST            | NUMBER   | 16,3 |
| ITEMLOG                                    | TRANSDATE                              | DATE     |      | INVTRANS    | TRANSDATE          | DATE     |      |
| ITEMLOG                                    | FOA    RESOURCECODE                    |          |      | INVTRANS    | ITEMNUM            | VARCHAR2 | 12   |
|  | 'INSERTITEM'                           |          |      | INVTRANS    | TRANSTYPE          | VARCHAR2 | 16   |
|  | ' <b>CEFMS INTERFACE TRANSACTION</b> ' |          |      | INVTRANS    | MEMO               | VARCHAR2 | 50   |
| ITEMLOG                                    | QUANTITY                               | NUMBER   | 15,2 | INVTRANS    | CONVERSION         | NUMBER   | 15,2 |
| ITEMLOG                                    | QUANTITY                               | NUMBER   | 15,2 | INVTRANS    | CURBAL             | NUMBER   | 15,2 |
|  | 'CEFMS'                                |          |      | INVTRANS    | ENTERBY            | VARCHAR2 | 18   |
|  | CURBAL * (OLDCOST-NEWCOST)             |          |      | INVTRANS    | LINECOST           | NUMBER   | 15,2 |
| ITEMLOG                                    | QUANTITY                               | NUMBER   | 15,2 | INVTRANS    | PHYSCNT            | Number   | 15,2 |
|  | <i>System Assigned</i>                 |          |      | INVTRANS    | INVTRANSID         | INTEGER  |      |

## 4.5 Equipment Costs

CEFMS tracks Asset costs to show the book cost (including additions and betterments) and book value, (including depreciations). This cost data will be made available to FEM for display along with maintenance cost data on the Equipment Cost Details screen. The diagram below shows database tables impacted.



### 4.5.1 Retrieve Equipment Cost Data from CEFMS

On a periodic basis FEM will access the CEFMS database to extract the latest Asset Cost data from the ASSET\_COST table. FEM will store the data in the Asset Cost Log (ACOSTLOG) table in FEM. FEM will compute costs for each asset and update the Equipment Cost Details (EQX2) table after all of the cost data is retrieved.

The following table shows how the data will be mapped from CEFMS to FEM.

| CEFMS Table                      | CEFMS Column Name                                 | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|----------------------------------|---|----------|------|-----------|-----------------|----------|------|
| <b>Get CEFMS Asset Cost Data</b> |   |          |      |           |                 |          |      |
|                                  | <i>System Generated with Autokey</i>              |          |      | ACOSTLOG  | TRANSID         | VARCHAR2 | 8    |
|                                  | System Date                                       |          |      | ACOSTLOG  | TRANSDATE       | DATE     |      |
| ASSET_COST                       | PROPERTY_ID_CODE                                  | VARCHAR2 | 15   | ACOSTLOG  | PROPERTYID      | VARCHAR2 | 15   |
| ASSET_COST                       | ASSET_COST_TYPE                                   | VARCHAR2 | 4    | ACOSTLOG  | COSTTYPE        | VARCHAR2 | 4    |
| ASSET_COST                       | PFY_AMT   | NUMBER   | 14,2 | ACOSTLOG  | PFYAMT          | NUMBER   | 14,2 |
| ASSET_COST                       | CFY_AMT   | NUMBER   | 14,2 | ACOSTLOG  | CFYAMT          | NUMBER   | 14,2 |
| ASSET_COST                       | PFY_CUM_AMT                                       | NUMBER   | 14,2 | ACOSTLOG  | PFYCUMAMT       | NUMBER   | 14,2 |
| ASSET_COST                       | WI_CODE   | VARCHAR2 |      | ACOSTLOG  | WORKITEMCODE    | VARCHAR2 |      |
|                                  | <i>Based on the CEFMS database being accessed</i> |          |      | ACOSTLOG  | FOACODE         | VARCHAR2 | 2    |

#### 4.5.2 Update Equipment Costs with CEFMS Data

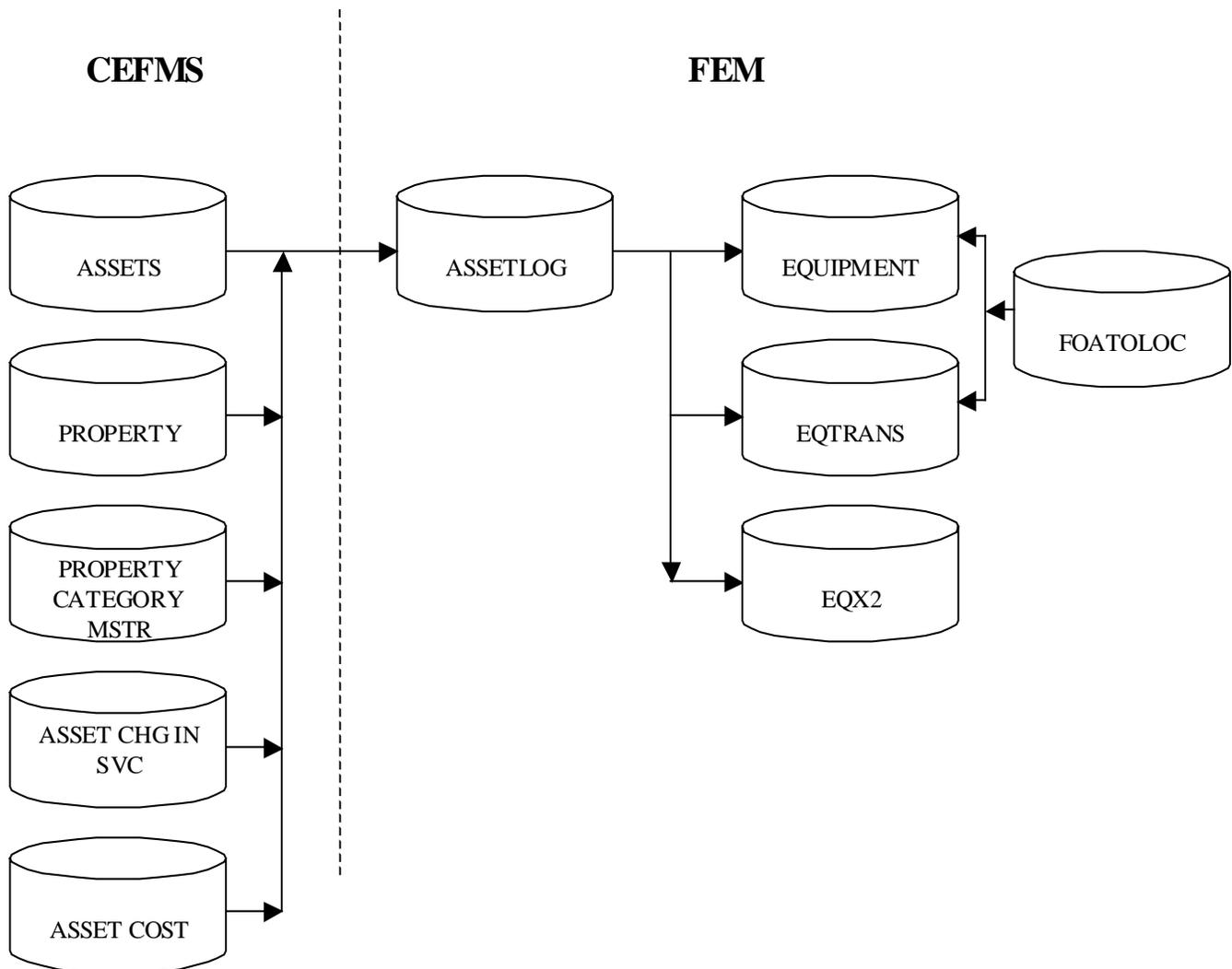
FEM will compute the costs for each equipment item once the data is retrieved from all of the CEFMS databases. These computed costs will be used to update the Equipment Cost Details (EQX2) table as specified in the following table.

| CEFMS Cost                   | Equipment Cost Details (EQX2) Table Column | Computation Method  |
|------------------------------|--|---|
| Original Cost                | ORGCOST                                    | Sum of PFYCUMAMT and CFYAMT for a given Property ID where COSTTYPE is any one of the following codes:<br><br>ORG Original Cost<br>FOC Found on Works, Cost Account Amount<br>FOW Found on Works, Fair Market Value<br>DOC Donations, Cost Account Amounts<br>DON Donation, Fair Market Value<br>TRC Book Cost Capitalized after Asset Placed in Service<br>TRI Transfer-In Cost |
| Additions and Betterments    | ADDBETTERCOST                              | Sum of PFYCUMAMT and CFYAMT for a given Property ID where COSTTYPE equals ADB (Addition and Betterment Cost)  |
| Book Cost Transfers          | BOOKTRASCOST                               | Sum of PFYCUMAMT and CFYAMT for a given Property ID where COSTTYPE is one of the following codes:<br><br>BCI Book Cost Transferred In<br>BCO Book Cost Transferred Out<br>BCR Book Cost Retired<br>BCW Book Cost Written Off  |
| Book Cost                    | BOOKCOST                                   | Original Cost + Additions and Betterments + Book Cost Transfers   |
| Accumulated Depreciation     | ACCDEPRCOST                                | Sum of PFYCUMAMT and CFYAMT for a given Property ID where COSTTYPE equals ACD (Accumulated Depreciation)  |
| Depreciation Transferred In  | DEPRTRANSINCOST                            | Sum of PFYCUMAMT and CFYAMT for a given Property ID where COSTTYPE equals DTI (Depreciation Transferred In)   |
| Depreciation Transferred Out | DEPRTRANSOUTCOST                           | Sum of PFYCUMAMT and CFYAMT for a given Property ID where COSTTYPE is one of the following codes:<br><br>DTO Depreciation Transferred Out<br>DTR Depreciation Transfer Retirement<br>DTW Depreciation Written Off   |
| Book Value                   | BOOKVALUE                                  | Book Cost + Accumulated Depreciation + Depreciation Transferred In + Depreciation Transferred Out   |

The Asset Cost Log Property Id field and the FOA Code will be used to find the proper FEM Equipment Number to update in the Equipment Cost Details table. (EQX2.EQNUM = EQUIPMENT.EQNUM where ACOSTLOG.PROPERTYID = EQUIPMENT.ASSETNUM and ACOSTLOG.FOACODE is equal to the first two characters of the Equipment's Owing Organization Code (EQUIPMENT.EQ9).)

#### 4.6 Process New Real Property Records

FEM will retrieve Real property records from CEFMS when new Real Property items are placed in service. Land records will not be retrieved. FEM will then create a new equipment record for the Real Property Item. The diagram below shows the Database tables affected.



##### 4.6.1 Retrieve New Real Property Records From CEFMS

On a periodic basis FEM will check the CEFMS database to see if a new piece of Real Property has been put in service. To determine if there is a new Real Property item, FEM will check CEFMS' ASSET\_CHG\_IN\_SVC table. All Property IDs whose initial CHANGE\_DATE is later than the last time the interface was ran will be considered new property. The initial CHANGE\_DATE is identified by CHANGE\_ACTIVITY\_TYPE = 'S'. Once all of the new Property IDs are found, FEM will compare

them to CEFMS' PROPERTY\_CATEGORY\_MSTR table to determine which ones are Real Property IDs (PROPERTY\_TYPE\_CODE = 'R'). Once the real Property is Identified, FEM will check the PROPERTY table and eliminate all property that has a Track Number (TRACT\_NO). If there is a new Real Property item, FEM will gather data about the Real Property item and place it into FEMS, Asset Log table (ASSETLOG). The Asset Log table will be processed after the data is retrieved from all of the CEFMS databases to create the appropriate records in the FEM Equipment related tables.

| CEFMS Table   | CEFMS Column Name       | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|---|-------------------------|----------|------|-----------|-----------------|----------|------|
|   | <i>System Generated</i> |          |      | ASSETLOG  | TRANSID         | VARCHAR2 | 8    |
|   |                         |          |      | ASSETLOG  | TRANSDATE       | DATE     |      |
| <b>Get New Real Property data from Asset Table</b>  |                         |          |      |           |                 |          |      |
| ASSETS  | PROPERTY_ID_CODE        | VARCHAR2 | 15   | ASSETLOG  | PROPERTYID      | VARCHAR2 | 15   |
| ASSETS  | PARENT_PROP_ID_CODE     | VARCHAR2 | 15   | ASSETLOG  | PARENT          | VARCHAR2 | 15   |
| ASSETS  | OWNING_ORG              | VARCHAR2 | 7    | ASSETLOG  | OWNORG          | VARCHAR2 | 7    |
| ASSETS  | ACQUISITION_DATE        | DATE     |      | ASSETLOG  | ACQDATE         | DATE     |      |
| ASSETS  | NSN                     | VARCHAR2 | 15   | ASSETLOG  | NSN             | VARCHAR2 | 15   |
| <b>Get In Service Date from</b>   |                         |          |      |           |                 |          |      |
| ASSET_CHG_IN_SVC  | CHANGE_DATE             | DATE     |      | ASSETLOG  | INSERVDATA      | DATE     |      |
|   |                         |          |      |           |                 |          |      |
| PROPERTY  | PROPERTY_DESC           | VARCHAR2 | 65   | ASSETLOG  | DESCRIPTION     | VARCHAR2 | 75   |
| PROPERTY  | COMPONENT_NO            | VARCHAR2 | 3    | ASSETLOG  | COMPONENTNUM    | VARCHAR2 | 3    |
| <b>Get Property Original Cost. Note: The Original Cost will computed just as described in Paragraph 4.5.2</b> |                         |          |      |           |                 |          |      |
| ASSET_COST  | CFYAMT                  | NUMBER   | 14,5 | ASSETLOG  | ORIGINALCOST    | NUMBER   | 15,2 |

#### 4.6.2 Create FEM Equipment Records

An equipment record must be created for each Property ID and each Component Number contained in the ASSETLOG table. The location will be defaulted to the location specified for the FOA in the FOQ to Location (FOAToloc) cross-reference table. The table below defines how the data is to be mapped from the ASSETLOG table.

All new equipment records will prefix the FOA code as the first two digits of the FEM Equipment Number. The FOA Code will be obtained from the first to digits of the Owning Organization (OWNORG).

| FEM Table                                       | FEM Column Name    | Format   | Size | FEM Table | FEM Column Name    | Format   | Size |
|---|--------------------|----------|------|-----------|--------------------|----------|------|
| <b>Create Equipment Record for Property Ids</b> |                    |          |      |           |                    |          |      |
| ASSETLOG  | PROPERTYID         | VARCHAR2 | 15   | EQUIPMENT | ASSETNUM           | VARCHAR2 | 15   |
|   | 0                  |          |      | EQUIPMENT | AVGMETERUNIT       | NUMBER   | 15,2 |
|   | 0                  |          |      | EQUIPMENT | AVGMETERUNIT2      | NUMBER   | 15,2 |
|   | 0                  |          |      | EQUIPMENT | BUDGETCOST         | NUMBER   | 10,2 |
|   | 'CEFMS'            |          |      | EQUIPMENT | CHANGEBY           | VARCHAR2 | 18   |
|   | <i>System Date</i> |          |      | EQUIPMENT | CHANGEDATE         | DATE     |      |
| ASSETLOG  | DESCRIPTION        | VARCHAR2 | 75   | EQUIPMENT | DESCRIPTION        | VARCHAR2 | 75   |
| ASSETLOG  | NSN                | VARCHAR2 | 15   | EQUIPMENT | EQ3 (NSN)          | VARCHAR2 | 15   |
|   | 'R'                |          |      | EQUIPMENT | EQ4 (PROPERTYTYPE) | VARCHAR2 | 1    |

| FEM Table  | FEM Column Name                      | Format   | Size | FEM Table | FEM Column Name         | Format   | Size |
|--|--------------------------------------|----------|------|-----------|-------------------------|----------|------|
| ASSETLOG   | OWNORG                               | VARCHAR2 | 7    | EQUIPMENT | EQ9 (OWNORG)            | VARCHAR2 | 7    |
|  | 'N'                                  |          |      | EQUIPMENT | EQ14 (ONLOAN)           | YORN     | 1    |
|  | 'NE'                                 |          |      | EQUIPMENT | EQ15 (EUMP)             | VARCHAR2 | 4    |
|  | 'Y'                                  |          |      | EQUIPMENT | EQ16 (ACTIVEEQUIP)      | YORN     | 1    |
|  | 'N'                                  |          |      | EQUIPMENT | EQ20 (TRACKUTILIZATION) | YORN     | 1    |
| ASSETLOG   | Substr (OWNINGORG,1,2)    PROPERTYID |          |      | EQUIPMENT | EQNUM                   | VARCHAR2 | 17   |
|  | 'N'                                  |          |      | EQUIPMENT | IMPORTDELTA             | YORN     | 1    |
|  | 'N'                                  |          |      | EQUIPMENT | IMPORTDELTA             | YORN     | 1    |
|  | 'N'                                  |          |      | EQUIPMENT | INHERITMETER1C          | YORN     | 1    |
|  | 'N'                                  |          |      | EQUIPMENT | INHERITMETER2C          | YORN     | 1    |
| ASSETLOG   | INSERVDATE                           | DATE     |      | EQUIPMENT | INSTALLDATE             | DATE     |      |
|  | 0                                    |          |      | EQUIPMENT | INVCOST                 | NUMBER   | 15,2 |
| FOATOLOC   | LOCATION                             | VARCHAR2 | 15   | EQUIPMENT | LOCATION                | VARCHAR2 | 15   |
|  | 0                                    |          |      | EQUIPMENT | METER1WEIGHTP           | NUMBER   | 5    |
|  | 0                                    |          |      | EQUIPMENT | METER2WEIGHTP           | NUMBER   | 5    |
|  | 0                                    |          |      | EQUIPMENT | METERREADING            | NUMBER   | 15,2 |
|  | 0                                    |          |      | EQUIPMENT | METERREADING2           | NUMBER   | 15,2 |
| ASSETLOG   | Substr (OWNINGORG,1,2)    PARENT     | VARCHAR2 | 15   | EQUIPMENT | PARENT                  | VARCHAR2 | 15   |
| ASSETLOG   | ORIGINALCOST                         | NUMBER   | 15,2 | EQUIPMENT | PURCHASEPRICE           | NUMBER   | 15,2 |
| ASSETLOG   | ORIGINALCOST                         | NUMBER   | 15,2 | EQUIPMENT | REPLACECOST             | NUMBER   | 15,2 |
|  | 0                                    |          |      | EQUIPMENT | TOTALCOST               | NUMBER   | 10,2 |
|  | 0                                    |          |      | EQUIPMENT | TOTDOWNTIME             | NUMBER   | 8    |
|  | 0                                    |          |      | EQUIPMENT | TOTUNCHARGECOST         | NUMBER   | 10,2 |
|  | 0                                    |          |      | EQUIPMENT | UNCHARGEDCOST           | NUMBER   | 10,2 |
|  | 0                                    |          |      | EQUIPMENT | YTDCOST                 | NUMBER   | 10,2 |
| <b>Create Equipment Transaction Records for Property IDs</b> |                                      |          |      |           |                         |          |      |
| ASSETLOG   | INSERVDATE                           | DATE     |      | EQTRANS   | DATEMOVED               | DATE     |      |
|  | 'CEFMS'                              |          |      | EQTRANS   | ENTERBY                 | VARCHAR2 | 18   |
| ASSETLOG   | Substr (OWNINGORG,1,2)    PROPERTYID |          |      | EQTRANS   | EQNUM                   | VARCHAR2 | 17   |
| FOATOLOC   | LOCATION                             | VARCHAR2 | 15   | EQTRANS   | TOLOC                   | VARCHAR2 | 15   |
|  | System Date                          | DATE     |      | EQTRANS   | TRANSDATE               | DATE     |      |
| <b>Create Equipment Cost Detail Records for Property IDs</b> |                                      |          |      |           |                         |          |      |
| ASSETLOG   | Substr (OWNINGORG,1,2)    PROPERTYID |          |      | EQX2      | EQNUM                   | VARCHAR2 | 17   |
| <b>Create Equipment Record for Components</b>                |                                      |          |      |           |                         |          |      |
|  | 0                                    |          |      | EQUIPMENT | AVGMETERUNIT            | NUMBER   | 15,2 |

| FEM Table  | FEM Column Name  | Format   | Size | FEM Table | FEM Column Name         | Format   | Size |
|--|--|----------|------|-----------|-------------------------|----------|------|
|  | 0  |          |      | EQUIPMENT | AVGMETERUNIT2           | NUMBER   | 15,2 |
|  | 0  |          |      | EQUIPMENT | BUDGETCOST              | NUMBER   | 10,2 |
|  | 'CEFMS'  |          |      | EQUIPMENT | CHANGEBY                | VARCHAR2 | 18   |
|  | System Date  |          |      | EQUIPMENT | CHANGEDATE              | DATE     |      |
| ASSETLOG   | DESCRIPTION  | VARCHAR2 | 75   | EQUIPMENT | DESCRIPTION             | VARCHAR2 | 75   |
| ASSETLOG   | NSN  | VARCHAR2 | 15   | EQUIPMENT | EQ3 (NSN)               | VARCHAR2 | 15   |
|  | 'R'  |          |      | EQUIPMENT | EQ4 (PROPERTYTYPE)      | VARCHAR2 | 1    |
| ASSETLOG   | OWNORG   | VARCHAR2 | 7    | EQUIPMENT | EQ9 (OWNORG)            | VARCHAR2 | 7    |
|  | 'N'  |          |      | EQUIPMENT | EQ14 (ONLOAN)           | YORN     | 1    |
|  | 'NE'   |          |      | EQUIPMENT | EQ15 (EUMP)             | VARCHAR2 | 4    |
|  | 'Y'  |          |      | EQUIPMENT | EQ16 (ACTIVEEQUIP)      | YORN     | 1    |
|  | 'N'  |          |      | EQUIPMENT | EQ20 (TRACKUTILIZATION) | YORN     | 1    |
| ASSETLOG   | Substr (OWNINGORG,1,2)   PROPERTYID    '-'   COMPONETNUM |          |      | EQUIPMENT | EQNUM                   | VARCHAR2 | 17   |
|  | 'N'  |          |      | EQUIPMENT | IMPORTDELTA<br>TER1     | YORN     | 1    |
|  | 'N'  |          |      | EQUIPMENT | IMPORTDELTA<br>TER2     | YORN     | 1    |
|  | 'N'  |          |      | EQUIPMENT | INHERITMETER1C<br>HANG  | YORN     | 1    |
|  | 'N'  |          |      | EQUIPMENT | INHERITMETER2C<br>HANG  | YORN     | 1    |
| ASSETLOG   | INSERVDATE   | DATE     |      | EQUIPMENT | INSTALLDATE             | DATE     |      |
|  | 0  |          |      | EQUIPMENT | INVCOST                 | NUMBER   | 15,2 |
| FOATOLOC   | LOCATION   | VARCHAR2 | 15   | EQUIPMENT | LOCATION                | VARCHAR2 | 15   |
|  | 0  |          |      | EQUIPMENT | METER1WEIGHTP<br>RCNT   | NUMBER   | 5    |
|  | 0  |          |      | EQUIPMENT | METER2WEIGHTP<br>RCNT   | NUMBER   | 5    |
|  | 0  |          |      | EQUIPMENT | METERREADING            | NUMBER   | 15,2 |
|  | 0  |          |      | EQUIPMENT | METERREADING2           | NUMBER   | 15,2 |
| ASSETLOG   | Substr (OWNINGORG,1,2)   PROPERTYID                      | VARCHAR2 | 15   | EQUIPMENT | PARENT                  | VARCHAR2 | 15   |
|  | 0  |          |      | EQUIPMENT | PURCHASEPRICE           | NUMBER   | 15,2 |
|  | 0  |          |      | EQUIPMENT | REPLACECOST             | NUMBER   | 15,2 |
|  | 0  |          |      | EQUIPMENT | TOTALCOST               | NUMBER   | 10,2 |
|  | 0  |          |      | EQUIPMENT | TOTDOWNTIME             | NUMBER   | 8    |
|  | 0  |          |      | EQUIPMENT | TOTUNCHARGEC<br>OST     | NUMBER   | 10,2 |
|  | 0  |          |      | EQUIPMENT | UNCHARGEDCOS<br>T       | NUMBER   | 10,2 |
|  | 0  |          |      | EQUIPMENT | YTDCOST                 | NUMBER   | 10,2 |
| <b>Create Equipment Transaction Records for Components</b> |  |          |      |           |                         |          |      |
| ASSETLOG   | INSERVDATE   | DATE     |      | EQTRANS   | DATEMOVED               | DATE     |      |
|  | 'CEFMS'  |          |      | EQTRANS   | ENTERBY                 | VARCHAR2 | 18   |

| FEM Table | FEM Column Name   | Format   | Size | FEM Table | FEM Column Name | Format   | Size |
|-----------|---|----------|------|-----------|-----------------|----------|------|
| ASSETLOG  | Substr<br>(OWNINGORG,1,2)<br>   PROPERTYID    '-'<br>   COMPONETNUM |          |      | EQTRANS   | EQNUM           | VARCHAR2 | 17   |
| FOATOLOC  | LOCATION  | VARCHAR2 | 15   | EQTRANS   | TOLOC           | VARCHAR2 | 15   |
|           | <i>System Date</i>  | DATETIME |      | EQTRANS   | TRANSDATE       | DATETIME |      |